

The Incorporated Accountants' Journal

The Official Organ of

The Society of Incorporated Accountants and Auditors

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(c) Empowering the Council to take such action as may be necessary to enable them to ascertain whether or not the rules are being complied with.

Under the provisions of the Act the High Court is empowered to impose penalties up to £500 for failure to comply with the rules and any person may make a complaint to the disciplinary committee in respect of any such failure. Certain public officers, county officers, and whole-time officers of local authorities are not to be subject to the Rules made under (a) and (b).

An arrangement has been arrived at whereby the *Stock Exchange Year Book* has been amalgamated with the *Stock Exchange Official Intelligence* (familiarily known as "Burdett"). A holding company is to be registered which will acquire the copyrights of both publications and 51 per cent. of its capital will be held by the Trustees and Managers of the Stock Exchange. The remaining 49 per cent. will be held by Thomas Skinner & Co. and the profits are to be divided equally. The title of the combined book will be *The Stock Exchange Official Year Book* and in form it will follow the lines of the present *Stock Exchange Year Book*, but the editorial comments will be those of the *Stock Exchange Official Intelligence*, supplemented by additional details taken from the *Stock Exchange Year Book*.

Professional Notes.

In another column will be found the text of the Solicitors Act, 1933, recently passed. It provides for the making and enforcement of rules as to the keeping of accounts for clients' moneys and other matters of professional conduct. The rules referred to are to be made by the Law Society subject to the approval of the Master of the Rolls. The chief matters to be dealt with in these rules are:—

- As to the opening and keeping by solicitors of accounts at banks for clients' moneys; and
- As to the keeping by solicitors of accounts containing particulars and information as to moneys received, held or paid by them, for or on account of their clients; and

In another column will be found a contributed article on the subject of the Rent and Mortgage Interest Restrictions (Amendment) Act which will be read with interest. An important provision of this Act is contained

in sect. 9, which provides for the temporary continuance of the mortgage provisions where property is de-controlled by the new Act. The section enacts that where any mortgage property consists of or comprises one or more dwelling houses to which the principal Acts will cease to apply as from September 29th, 1933, by virtue of sect. 1 of the new Act, the principal Acts shall, until the expiration of six months next after the passing of the Act (viz, July 18th, 1933), have effect in relation to the mortgage as if the premises had remained controlled and the provisions regarding apportionment contained in sect. 12 of the Act of 1920 will apply.

In connection with the remarkable fire-raising conspiracy case which was brought to a conclusion last month after a hearing lasting for 33 days, Mr. Justice Humphreys paid a compliment to the firm of Cook, Mahony & Co., Incorporated Accountants, for their assistance in the matter. He said they had played an important part in the investigation of the fraud. Mr. J. A. Cook, with a special staff, investigated the accounts of the businesses which were fired, and was mainly instrumental in showing how these businesses were financed by members of the gang and how the spoils were divided. The schedules prepared by Mr. Cook and his staff were in constant reference by Judge, Jury and Counsel throughout the trial.

In giving judgment in the case of *Aldwarke Company Limited v. Commissioners of Inland Revenue*, in an appeal from the decision of the Board of Referees with regard to Super Tax on undistributed income of the company, Mr. Justice Finlay quoted with approval some observations of the late Mr. Justice Rowlatt in another case of the same character. The words quoted, which had reference to sect. 21 of the Finance Act, 1922, were as follows :—

Now the Act is certainly of a very sweeping character, and it has this very remarkable characteristic, that if it is determined that the company has not declared a reasonable amount of dividends, the whole of the profits become treatable as the income of the shareholders, and not merely that part which would have been a reasonable dividend, the basis of it all being that the Act does not contemplate it ever being said what is a reasonable dividend. That is the basis of it, and therefore the whole inquiry is left in the vaguest possible shape; in fact, it

goes very near to taxation at the discretion of the Board of Referees.

The indications are that the company registrations for the year 1933 will create a record. For the first six months of the year the total number of companies registered—public and private—shows an increase of 547 on the corresponding period of the preceding year. Whilst the number of public companies for the whole of 1932 was only 255 (of which 108 were registered in the first half of the year) there have been registered for the first half of 1933 as many as 155. Not only does the number show an increase but the capital represented by the public companies registered from January to June is more than three times as great as the capital of the public companies registered for the corresponding period of 1932. The large number of registrations is doubtless accounted for to a certain extent by the release of the embargo on new issues which was in force for some time, but it has also to be borne in mind that the number of new companies registered during 1932 broke all previous records.

Friendly societies are finding that mortality rates amongst their members are getting lighter but that sickness claims are at the same time becoming much heavier. The Actuary of one of these societies at a recent meeting said that the point had now been reached where convalescence was a period which was part of sickness and in reality a new benefit had been created without any increase in the amount of contributions. In order to maintain the solvency of the sickness fund it would be necessary for the contributions to be increased or the benefits reduced. He submitted figures which showed that the benefits exceeded the contributions by about one-third, and urged the need for the preparation of new tables of contributions based on the latest experience, and at the same time advocated more effective supervision of claims.

The Committee appointed by the Treasury in 1931 has made its report on Industrial Assurance, and one of the outstanding recommendations is that expenses of management of Industrial Assurance Companies should be limited to 30 per cent. of the premium income. Any company or society expending more than this percentage at the date when the suggested new legislation comes into force, must produce a scheme estimated to

secure an immediate and substantial reduction in the expense rate and an eventual reduction within seven years to the proposed limit of 30 per cent. The 30 per cent. is apparently based on the fact that the Prudential Assurance Company's expense ratio on Industrial Assurance is now 24 per cent. and that of the Pearl Assurance Company 31 per cent. On the other hand, the expense ratio of the fire departments of British companies as a whole last year averaged as much as 45 per cent. of the premiums. Surprise has been expressed at the proposal that the expense ratio of Industrial Assurance of all companies, regardless of the differing circumstances of the individual offices, should be fixed at an ultimate maximum of 30 per cent. and the Committee's recommendations are likely to meet with considerable opposition. Another recommendation is that there should be a substantial diversion of future business from weekly to monthly premium payments.

When the Companies Act, 1929, was passed, voluntary liquidations were divided into two classes—members' winding-up and creditors' winding-up. It was provided by sect. 280 that a liquidation could only be carried through as a members' winding-up if a statutory declaration was made by a majority of the directors, after full inquiry into the affairs of the company, that the company would be able to pay its debts in full within twelve months, and surprise was expressed at the time that no penalty was imposed upon the directors in the event of a wrongful or reckless declaration having been made. This point has now come up for legal decision in the case of *In re Bodenham & Co., Limited*, which was tried recently in the Leominster County Court, the result being that a compulsory winding-up was ordered, and on a misfeasance summons the sole director was held liable for damages of £456, being the difference between the amount which it was calculated the assets would have realised under a creditors' nominee with a committee of inspection and the amount realised by the liquidator appointed by the members. How this difference was arrived at is not very obvious, but the case indicates the line which may be adopted in assessing damages in cases of this character.

A question came before Mr. Justice Finlay in the King's Bench Division in the case of the *Du Bois Company* as to the liability of that company for Income Tax in respect of income from a German company known as C. Herbert Torry Gesellschaft, in which the English company held all the capital. On behalf of the company it was contended that the words "Stocks or Shares"

under Schedule D must be read in the usual commercial sense, and did not include the English company's interest in the German undertaking. This view was upheld by the Income Tax Commissioners, but the Crown appealed and Mr. Justice Finlay reversed the decision of the Commissioners. In giving judgment he said he had not come to that conclusion without a certain amount of doubt, but he thought that the words "Income from Stocks and Shares" was wide enough to cover income which the parent company acquired from the German undertaking.

Under the existing financial provisions the Dominion Government of Canada lends money to Chartered Banks against municipal securities at the rate of 3 per cent. per annum, whilst the banks, on the other hand, charge municipalities for temporary loans at rates varying from 5½ to 7 per cent. The municipal authorities desire an alteration of these arrangements and, on behalf of the City Council of Vancouver, representations have been made to the Macmillan Commission, which is now sitting in that city, that a change should be made in the Canadian banking system with the object of permitting municipalities to obtain temporary loans direct from the Dominion Government at the same rate of interest as that at which the banks are entitled to borrow under the Finance Act. It will be interesting to see how matters develop, as under the proposal of the municipalities the Dominion Government would lose the security of the Banks, which is no doubt regarded as important.

The bankruptcy records of the United States of America for the month of July show that the failures for that month numbered 1,421 as compared with 2,596 in July of last year. The liabilities represented by these failures were also much lower, being less than one-third of those for July 1932. The aggregate failures for the first seven months of the year amount to 14,144 against 20,029 in 1932, with liabilities showing a reduction of nearly one-half.

Last year Sir Josiah Stamp constructed a general Index Number of profits indicating the changes in the return to capital as a whole since 1920 and another special Index Number indicating the changes in the return for risk-bearing capital (i.e., ordinary shares, &c.). The figures given referred expressly to changes in the aggregate

amount of profits and not to the rate of return upon capital which, in view of the large increase in invested capital in recent years, would show a much greater fall in the rate of return per unit than that indicated by the index. The index, which is pivoted upon the year 1924, was worked back to 1920 and forward to 1931. It has now been continued to 1932, and shows the following results:—

—	General Index.	Special Index.
1920	107.0	112.0
1921	68.7	57.3
1922	90.4	84.5
1923	94.1	90.6
1924	100.0	100.0
1925	104.1	109.3
1926	98.3	103.0
1927	106.5	111.4
1928	106.2	110.7
1929	106.8	114.3
1930	94.4*	94.4
1931	84.0†	74.3
1932	82.0†	71.4*

* Provisional, subject to early verification.

† Very provisional.

A reference to our July issue of 1932 will show that some of the figures then given as provisional are now substantially altered when definitely ascertained.

The report of the Census of Palestine taken in 1931 shows that the population of that country since 1922 has increased at the rate of 35½ per 1,000 per annum, which is believed to be a record. The Moslem population has increased by 28 per cent. and the Jewish population has more than doubled. The foregoing figures are particularly striking in view of the fact that in the period under review the value of the visible imports into Palestine was eight times that of the exports. It is evident that Palestine depends very considerably upon the "invisible contributions of value" mentioned in the report.

AUDITORS' RESPONSIBILITIES.

It is safe to state that the whole structure of industry and commerce to-day rests substantially upon the foundation of the principle of limited liability, which is almost entirely dependent for its strength and success upon the confidence of that large and democratic body, the investing public. In building up that confidence in company administration, the auditor has played no small part, for the investing public

has learned to have great regard for the reports and certificates of professional accountants, who have carried out their duties with a high standard of professional ethics. This confidence, not only in administration but also in the value of the statutory auditor's report, has, however, been somewhat shaken within the last four or five years. It was, therefore, not surprising to find as one of the most important subjects on the agenda of the Fourth International Congress on Accounting that of "The Auditor's Responsibility in Relation to Balance Sheets and Profit and Loss Accounts, from the British, Continental and American points of view."

Dr. Wilhelm Voss was responsible for the paper giving the Continental point of view, in which he very ably dealt with the present day organisation of the profession in Germany, the statutory functions of approved auditors in Germany, the auditor's responsibility and the application of the German commercial code. Colonel Robert H. Montgomery, C.P.A., who was President of the Third International Congress on Accounting, supplied, as a master of his subject, the American point of view, in which he clearly detailed the extent of the auditor's liability to a client for negligence, the scope of employment as affecting that liability, the liability of an auditor for negligence to third parties, gross negligence amounting to fraud, and criminal liability of the auditor. In addition, he dealt with that part of the Securities Act, 1933, affecting the profession in America. We are much indebted to these two gentlemen for giving us these points of view, but it is natural that the greatest centre of interest, as far as the accountants of these islands are concerned, should be in the paper on the British point of view, which was ably and courageously presented by Mr. Henry Morgan, F.S.A.A.

After giving a comprehensive and masterly historical survey of the statutory requirements and legal dicta with regard to the duty of the auditor in relation to balance sheets and profit and loss accounts of limited liability companies, in which he dealt with the well known cases of the *London and General Bank*, *Newton v. Birmingham Small Arms Company*, the *City Equitable Fire Insurance Company* and *Rex v. Kylsant and Morland*, all of which did much to shake the confidence of the public in limited liability companies, Mr. Morgan proceeded to expound his views on the proper construction of balance sheets and profit and loss accounts with the object of giving adequate disclosure to shareholders and defending the company against the concealed effects of bad management.

The views expressed by Mr. Morgan were based mainly upon the recommendations of the Special Committee set up by the Society of Incorporated Accountants and Auditors in November, 1931, of which Committee he was a distinguished member. The report, which was adopted by the Council of the Society in April, 1932, made a recommendation that the Government should be asked to appoint a Departmental Committee to consider amending legislation with regard to the sections of the Companies Act, 1929, relating to accounts and audit. No attempt was made in that report to set out all the amendments which the Committee deemed necessary, but certain specific suggestions, recommended to be incorporated in any amending legislation, were stated as follows:—

- (1) That the profit and loss account should show the true balance of profit or loss for the period covered by such account.
- (2) That in the profit and loss account any debits or credits which are abnormal in character, or extraneous in their nature to the ordinary transactions of the company, together with any reserves from a previous period no longer required, should be stated separately.
- (3) That free reserves should be disclosed on the face of the balance sheet. The need for such disclosure should not extend to provisions made for estimated losses or expenses not definitely ascertainable at the date of making up the company's accounts, but to which losses or expenses it is sound and proper to have regard in arriving at the profit or loss for the year or other period.
- (4) That where a holding company has investments in one or more subsidiary and/or sub-subsidiary companies, there should be stated on the face of the accounts of the holding company the total amount of the ascertained profits or losses of such subsidiary and/or sub-subsidiary companies appertaining to the interest of the holding company in such subsidiary and/or sub-subsidiary companies, in so far as such profits or losses have not been brought into account in the profit and loss account of the holding company.

Dealing with such drastic, but fundamental, reforms, striking as they do at the root of present distrust, Mr. Morgan's paper stimulated an interesting and animated discussion, in which many of the leaders of the profession took part. In the main the discussion was directed to the vexed questions of proper publication of profit and loss accounts, the disclosure of the creation

and utilisation of secret or internal reserves, the general duty of the auditor to the shareholders, and whether or not legislation amending the Companies Act, 1929, was advisable or necessary.

There was evidence of much confusion of thought in the discussion of Mr. Morgan's paper, which Sir James Martin endeavoured to clarify by a timely reminder that the majority of the shareholders of companies in Great Britain and Ireland were not speculators, but *bona-fide* shareholders who were helping industry and commerce and whose interests should be adequately protected. The disclosure of the object for which a secret reserve is created was also confused by many of the speakers with the disclosure of the amount put to reserve, and there was also misunderstanding as to the Society's attitude towards further legislation.

Sect. 123 of the Companies Act, 1929, provides that a profit and loss account shall be laid before the company in general meeting once at least in every calendar year, but the Act fails to define such account. It must be remembered that a profit and loss account may be either a complete statement of profit or loss expenditure and income, distinguishing the income between trading and non-trading items and separately featuring abnormal transfers to or from that account, or it may contain merely an omnibus item on the debit side in which all expenses are aggregated and on the credit side a similar heading bringing into hotch-pot the whole of the income of the concern, whether it be trading or non-trading in nature, or it may be anything between the two. In other words, it may be either an informative or an entirely useless and futile document solely at the discretion of the directors who are the interested accounting parties and who, in many cases, often forget that they occupy a position similar to that of trustees.

The Act does not define a balance sheet, but it does clearly enact that certain items, which had formerly been hidden to the detriment of the investing public, should be disclosed. This is all that the Society's recommendation suggests with regard to the profit and loss account, and therefore it is not necessary to search for a definition of the profit and loss account, a process in which some of the accountants speaking on Mr. Morgan's paper seemed to apprehend serious difficulty.

An auditor is not required by law to report on the profit and loss account, and Mr. Morgan in his paper pleads for an amendment in this direction. It is quite true, as stated by Mr. Charles Reid, C.A., that the balance sheet discloses the balance of the profit and loss account,

but it does not follow, as also stated by him, that the inclusion of that balance in the balance sheet discloses the true and correct view of the company's affairs, although the balance sheet itself would in effect show the position as disclosed by the books of the company, and may be such that some auditors may feel themselves free to give a clean report. Speaking on this question, Mr. Howitt, F.C.A., said that "if the profit and loss account did not show earnings it must not be so worded as to convey the impression that it did; if it did purport to show earnings, extraneous items, if material, should either be indicated or shown separately as occasion demanded, and, as between different accounting periods, revenue should be stated on a reasonably uniform basis. An auditor who did not see that such rules were complied with did so at his peril. They might specify, even by legislation, that certain items must be shown separately, *e.g.*, income tax, depreciation, income from investments and income from subsidiaries." He saw no objection to such a procedure, and said he would watch with interest the German experiment in that direction.

Mr. Morgan very effectively put the searchlight upon that skeleton in the cupboard, secret or internal reserves, although the discussion revealed some divergence of opinion upon the question of disclosure. While there is no doubt that in the majority of cases the creation of internal reserves is effected in the supposed best interests of the company, yet they are utilised to an alarming extent to cover up and temporarily bury the effects of bad management. It can be confidently stated that, with very few exceptions, the non-disclosure of the utilisation of such reserves is more in the interests of directors than in the interests of the shareholders, or the company. It is a fact that the manipulation of reserves is one of the strongest weapons in the hands of inefficient management, and if the present depression continues much longer we are bound to see the effect of the loose accounting in this connection. The recommendation of the Society, if adopted, would put an end to the possibility of any such manipulation.

The directors are supposed to account to the shareholders, but are usually given power by the company's Articles to put such sums to reserve as they deem expedient. Why, then, should they not account for these reserves? If it should be in the interests of the company to conceal the object of any reserves, such objection to disclosure could be overcome by disclosing the amount of the reserves as a general reserve or reserve for contingencies. Mr. Morgan very

carefully and clearly drew a distinction in his paper between "free reserves" and "provisions," but this did not seem to prevent confusion in the minds of one or two of the speakers.

Mr. H. Fitch Kemp, F.C.A., in ably opening the discussion on Mr. Morgan's paper, questioned the advisability of the Society's recommendation as to disclosure of reserves and said: "Suppose, for instance, that the directors of a manufacturing company were confronted with the early termination of a trade agreement which had for some years been in operation between themselves and their competitors, including some foreigners, and which was unlikely to be renewed, and they desired out of the profits of a year to set aside a substantial sum to secret reserve to strengthen the hands of the management to meet the rate war with which they might be threatened. The disclosure of this appropriation on the face of the accounts would involve the risk of precipitating the very event which the directors were most anxious to avoid, and yet the absence of some such secret fighting resource might well endanger the very existence of the company." The danger of this procedure is that the principle, or, rather, lack of principle, may be equally extended to other matters. The procedure outlined by Mr. Fitch Kemp appears to be unnecessary, because this seems to be a case where the disclosure of the reserve, without indicating its object, would be likely to have a more restraining effect. Such expressions as "not in the interests of the company" or "damaging to the interests of the company" and their many variations have become quite a fetish with some directors, and they are generally used by directors in connection with something they do not wish to disclose to their shareholders, and which, more often than not, reflects to the discredit of their own management.

Lord Plender, whose views as the recognised head of our profession must always be treated with the greatest respect, also took part in the discussion, and said that "if directors in the honest exercise of their judgment set aside a sum or sums for unmatured but possible contingencies to which the business was subject, and which they thought necessary in the best interests of the company, few, if any, auditors would question the desirability, if not the obligation, to see that the profits were stated after referring to such provisions having been made. It did not follow, however, that an auditor in reporting on the accounts would feel it to be his duty to state in his report the actual amount so set aside if the directors thought that

in the company's best interests the amount should not be disclosed, and they themselves refrained from doing so. Nor if such sum (or accumulations of such transfers) were included in an omnibus item on the debit side of the balance sheet, and the fact was clearly stated that it was so included, would an auditor necessarily consider it to be his duty to mention the amount in his report if the directors, acting to the best of their judgment and again in the shareholders' interests, refrained from stating the amount. But when profits of a year were supplemented or losses lessened or turned into apparent profits by transfers from contingency provisions that were found to be no longer required—and became, in effect, therefore, free reserves—or current revenue charges were debited thereto, then it might be said that different considerations arose and it would require very cogent reasons for the amounts not to be disclosed."

According to the cases cited by Mr. Morgan, it would appear that there is no duty imposed upon the auditor to protect directly the interests of the shareholders. His duty is clearly to place the shareholders in a position to protect themselves and he should have this in mind constantly when he is preparing his report upon the balance sheet. As is well known, the auditor's duty with regard to limited liability companies is defined by sect. 134 (1) of the Companies Act, 1929, under which he has to make his report to the shareholders on the balance sheet. There is no statutory obligation placed upon the auditor to report on the profit and loss account. In this connection Mr. Morgan expressed the opinion that the duties of the auditor regarding the profit and loss account should be defined as in the case of the balance sheet. The auditor is not brought into statutory relationship with any persons other than the shareholders, but there exist other interests which might place reliance on his report to the shareholders, which he cannot afford to dismiss from his consideration lightly, namely, the interests of creditors and of the general investing public.

The professional auditor, in the main, carries out his obligation with a high sense of duty and the standard of his integrity is generally recognised. He is employed by the shareholders, although his appointment is usually made at the instigation of the directors, and there is evidence that this fact has created a feeling among shareholders that he is too ready to accept the directors' viewpoint. A perusal of the discussion on Mr. Morgan's paper will

show that many of the speakers felt that their position as auditors should be strengthened *vis-a-vis* the directors, while others were desirous of leaving the position as at present. Mr. F. L. Fisher, F.C.A., said he ventured to differ fundamentally from Mr. Morgan and his Society, and stated that auditors could not be made efficient by Act of Parliament. It would be difficult to find either in Mr. Morgan's paper or in the recommendations of the Society any suggestion that auditors could be made efficient by Act of Parliament, and there certainly seems to be an inexcusable misunderstanding as to what the Society does recommend.

The Society recognises that, while an auditor cannot be made efficient by Act of Parliament, there is sufficient evidence available to show that an efficient auditor has obstacles placed in his way which might, and in some cases do, prevent him doing his full duty to the shareholders. It does not recommend legislation, but merely asks for the appointment of a Departmental Committee to explore, in the light of events which have transpired since the conclusions of the Greene Committee were arrived at, as to whether or not amending legislation is required. Sir James Martin in his speech on Mr. Morgan's paper made this quite clear, and stated that if a case was made out for further inquiry into the administration of companies, the duties of auditors and any analogous questions, they, as members of the profession, should welcome the opportunity of showing the faith that was in them and the manner in which they had discharged their duties.

Mr. Thomas Keens, F.S.A.A., pleaded with much enthusiasm for legislation which would place the smaller man in a position of independence which, in his opinion, the situation required. In this connection he said "it was utterly impossible, in the present state of the profession in this country—in spite of everything they believed of the standing of their colleagues and the independence which they manifested—for the smaller man who was not in the position of unquestioned superiority and eminence occupied by the larger firms, to take the attitude of extreme independence which the situation required unless he was backed up by Act of Parliament." In this Mr. Keens was supported by Mr. L. J. Davey, who emphasised that he was speaking as a younger member of the profession.

The pressure which is brought to bear upon the auditors by directors is notorious. Weighty evidence was given on this subject before the

Greene Committee, and Mr. Burgess, the Senior Official Receiver, stated that "some auditors are rather more easily satisfied than others." The auditor must, of course have regard to the wishes of the directors, and it should not be forgotten that the accounts upon which he is reporting are the directors' accounts, but he must not allow their persuasive powers to deflect him from what he knows to be his course of duty in reporting on those accounts to shareholders. That there are differences in the individual standard of auditors, whether they be members of the same Institute or Society or not, is well known. It seems therefore, that there is still much work to be done by the profession as a whole, and legislation, although it may be found to be necessary, is not the complete answer to the situation.

Evidence was given before the Greene Committee showing that auditors very often lost their jobs by insisting upon carrying out what they considered to be their duty by reason of the fact that other auditors were waiting for the position who were ready and willing to meet the directors' wishes. This ought not to be so. If an auditor does his duty fearlessly he should be protected by the profession, for he is of great value to that profession, and other members should be precluded from accepting an audit under such conditions. It is true that the matter is finally in the hands of the shareholders, but the auditor has generally to consider his prestige and may not have sufficient funds to deal with the situation, while the directors are usually left to proceed unperturbed, very rarely giving the true reason to shareholders for the change of auditor. If an auditor fails in his duty and that failure is discovered, he is very summarily dealt with by the disciplinary committee of the body of which he is a member, but we hope that means may be devised for giving more support to the conscientious auditor who does his job thoroughly without regard to his personal interests.

Speaking of the discussion on Mr. Morgan's paper, the chairman of the session, Mr. H. L. H. Hill, F.C.A., President of the Institute of Chartered Accountants in England and Wales, said that what had impressed him more than anything else was the fact of their unanimity in ideals and objectives, before which the importance of agreement as to methods of attaining them sank into insignificance. Although we are unable to concur in Mr. Hill's conclusion, we do not despair of a wider measure of agreement upon further consideration of the whole matter.

THE NEW RENT AND MORTGAGE INTEREST RESTRICTIONS ACT.

[CONTRIBUTED.]

FOR the purposes of the Rent and Mortgage Interest Restrictions (Amendment) Act, 1933, the Government have adopted the division of controlled houses into the classes made by the Committee appointed to review the entire system of rent restriction, each class being dealt with differently. These classes are known as A, B and C, although not so termed in the Act.

At the outset it may be useful to note that a dwelling house for the purposes of the Acts includes any part of a house let or sub-let as a separate dwelling, and applies to any house or part of a house where part of the premises is used as a shop, or office, or for business, trade or professional purposes. The term "appointed day" used in relation to yearly values means, for London, April 6th, 1931; for the remainder of England, April 1st, 1931, and for Scotland, May 16th, 1931. The restrictions in regard to all houses will expire on June 24th, 1938—in Scotland on May 28th, 1938. The limits of yearly values for control purposes prior to the passing of the 1933 Act were for London £105, Scotland £90, and elsewhere £78.

Class A.—This class comprises houses with a rateable value or recoverable rent on the appointed day of

- (1) over £45 in the Metropolitan Police District or the City of London;
- (2) over £45 in Scotland;
- (3) over £35 elsewhere.

These houses are decontrolled by the 1933 Act as follows: The landlord can give the tenant one month's notice in writing, either before or after September 29th, 1933, but no notice can take effect before that date. Until such notice is given, the tenant will remain in possession on the same terms as before the passing of the Act, and therefore, if both landlord and tenant are content, no action is required. The notice must be in writing and may be either a notice to give up possession or to the effect that a new agreement of tenancy must be entered into. If no agreement is come to before the date of expiration of the notice, any new terms given in writing by the landlord will be deemed to apply after that date if the tenant retains possession always providing that the landlord has accompanied his offer by a written statement to that effect. If, however, the tenant has under sect. 5 of the Landlord and Tenant Act, 1927, served a notice on the landlord requiring a new lease, or the landlord has under sect. 2 or 4 of that Act served on the tenant notice that he is willing and able to grant a renewal of the tenancy, the last mentioned provision of the 1933 Act will not apply. That Act specifically provides that the Landlord and Tenant Act, 1927, shall apply to Class A houses, as if the premises had been held under a lease—as defined in that Act—terminated by the statutory

notice under the 1933 Act. The 1927 Act provides for compensation for improvements or goodwill under certain circumstances. Acceptance by the landlord of any rent or mesne profits, after the expiration date of the month's notice under the 1933 Act, will not affect the validity of the notice.

Class B.—Control does not apply to any house built after April 2nd, 1919. The 1933 Act keeps in control, and restricts both as regards rent and mortgage interest, houses of which either the recoverable rent or the rateable value, on the appointed day, did not exceed £45 in London and in Scotland, and £35 elsewhere. Houses between the yearly values of Class C houses and the above figures are known as Class B houses, and the controlling provisions remain as under the present law—that is, decontrol follows on change of tenancy with landlord in actual possession. The death of a sitting tenant does not secure this, as a member of his or her family can continue lawful possession. But the new Act provides that such a succeeding tenant must have resided with the tenant for at least six months before the tenant's death.

Class C.—The 1933 Act gives control to houses of a rateable value on the appointed day not in excess of

- (1) in the Metropolitan Police District or the City of London, £20;
- (2) in Scotland, £26 5s.;
- (3) elsewhere, £13.

This means that, whether the tenancy is broken or not, the house remains a controlled house and is restricted as to rent and mortgage interest. Houses of similar yearly values that have become decontrolled before July 18th, 1933, will revert back to control unless the landlord before October 18th, 1933, registers the houses in this category with the relevant Council. Councils will supply application forms.

Right of Possession.—Possession of a controlled house cannot be obtained, except as explained under Class B heading, without recourse to the County Court. The new Act alters the possession procedure, as now the landlord is not required to give a reason why the house is required—that is, as regards the alternative accommodation provisions—but the Court must be satisfied that it is reasonable to give possession, that there is suitable alternative accommodation, and that such is or will be available when the Order takes effect. The Act defines suitable accommodation as a housing scheme house, a controlled house, or premises let as a separate dwelling reasonably equivalent in security of tenure to a controlled house. Accommodation must be, in the opinion of the Court, reasonably suitable to the needs of the tenant and his family as regards proximity to his place of work, and either similar as regards rental and extent to the houses provided by housing authorities in the neighbourhood to persons of similar needs, or otherwise reasonably suitable to the means and needs of the tenant and his family as regards extent and character.

Possession without proof of alternative accommodation can be obtained under various heads

(most of them re-enacted from former Acts), but all subject to the discretion of the Court. If the landlord reasonably requires the house for occupation as a residence for himself, for any son or daughter over 18 years, or for his father or mother, possession may be obtained, but the Court must not give possession if it is satisfied that, having regard to all the circumstances of the case, including the question of whether suitable accommodation is available for the landlord or the tenant, greater hardship would be caused by granting possession than by withholding it. This provision does not apply if the house was purchased after July 11th, 1931.

Other Points.—Where mortgages are taken out of control by the new Act—Class A houses—the removal of restrictions will not apply until January 18th, 1934. If an Order for possession is made through non-payment of rent due, the house will remain under control, although possession may be given to the landlord.

The 1933 Act gives power to the Court, where it considers reasonable, to give possession to a landlord without recourse to the possession rights explained above, where the tenant has charged, after July 18th, 1933, a sub-letting rent in excess of the rent apportioned to that part. If there is an official apportionment of a sub-let rent, and the tenant charges above the rent apportioned, he is also liable on conviction to a fine not exceeding £100.

The tenant is now called upon to give the landlord, in writing, particulars of any sub-letting, occupancy, and rent charged. Failure to do so is an offence with liability to a fine not exceeding £10. If the sub-letting took place before July 18th, 1933, notice must be given before October 18th, 1933; if after July 18th, within fourteen days. Permitted increases in rent remain as in former Acts, but the provision allowing an increase of 8 per cent. per annum on amount expended on any structural improvement or alteration (if undertaken before July, 1920, 6 per cent.) has been amplified by the inclusion of fittings and fixtures in this term; but the 8 per cent. permitted increase will not apply to any improvement or alteration unless the tenant has given his written consent to the improvement and the cost.

With regard to the 25 per cent. allowed for repairs and 15 per cent. other increase, a tenant may withhold the increased 40 per cent. if the house is in a state of disrepair, and a certificate from a sanitary authority to that effect would be sufficient evidence of his right to do so, if sued by his landlord. The 1933 Act provides that if the sanitary authority has certified the house as not in a reasonable state of repair, including action under the 1930 Housing Act, the authority must supply the tenant with a copy of the Certificate. A fee of 1s. is charged, but this can be deducted from any subsequent rent paid. If a landlord obtains possession of a house by false representations under certain of the provisions, he may be called upon to pay compensation to the tenant for damage or loss sustained, and the house may be brought back into control. Councils are empowered to publish information for the assistance of landlords and tenants regarding the Acts.

Society of Incorporated Accountants and Auditors.

COUNCIL MEETING.

A meeting of the Council of the Society was held at Incorporated Accountants' Hall on August 1st, when there were present:—Mr. E. Cassleton Elliott (President), Mr. R. Wilson Bartlett (Vice-President), Mr. W. Norman Bubbs, Mr. R. M. Branson, Mr. W. Allison Davies, Mr. Frederick Holliday, Mr. Walter Holman, Mr. Thomas Keens, Mr. Ernest T. Kerr, Mr. Edmund Lund, Mr. Henry Morgan, Mr. C. Hewetson Nelson, Mr. James Paterson, Mr. W. H. Payne, Mr. William Paynter, Mr. A. E. Piggott, Mr. J. Stewart Seggie, Mr. Percy Toothill, Mr. Frederic Walmsley, Mr. R. T. Warwick, Mr. E. W. C. Whittaker, Mr. Richard A. Witty, Mr. Fred Woolley, Mr. A. A. Garrett (Secretary), Mr. J. R. W. Alexander (Standing Counsel), and Mr. E. E. Edwards (Parliamentary Secretary).

Apologies for non-attendance were received from: Mr. D. E. Campbell, Mr. Arthur Collins, Sir James Martin, and Mr. Alan Standing.

COMMITTEES.

It was reported that the following appointments had been made by the respective Committees:—

Disciplinary Committee .. Chairman: Mr. Henry Morgan.

Finance and General Purposes Committee .. Chairman: Mr. C. Hewetson Nelson; Vice-Chairman: Mr. Walter Holman.

Examination and Membership Committee .. Chairman: Mr. Henry Morgan; Vice-Chairman: Mr. Richard A. Witty.

Parliamentary Committee .. Chairman: Mr. Thomas Keens.

Articles and Bye-Laws Committee .. Chairman: Mr. E. W. C. Whittaker.

District Societies Committee .. Chairman: Mr. Thomas Keens.

Committee to Advise on Candidates in Government Service .. Chairman: Mr. C. Hewetson Nelson.

Committee on South African Matters .. Chairman: Mr. E. Cassleton Elliott.

DEATHS.

The Secretary reported the deaths of the following members: John Baird (Associate), Glasgow; Walter Mark Dawson (Associate), Grimsby; Thomas William Deane (Associate), Timperley; Stanley Gibson (Associate), Dingley; Arthur Henry Hales (Fellow), Chertsey, Surrey; Alfred Eli Hawker (Associate), Sheffield; William Holding (Associate), London; Hereward Keith Martin (Associate), London; Arthur Amos Perkins (Associate), Southampton.

INTERNATIONAL CONGRESS ON ACCOUNTING, 1933.

Mr. Henry Morgan, Vice-Chairman of the Executive Committee made a formal report to the Council on the proceedings at the Congress.

The Council adopted the following resolution:—

"That the best thanks of the Council of the Society be accorded to: The President (the Right Hon. Lord Plender, G.B.E., LL.D.) and the Vice-President (Sir James Martin, M.B.E.) for their valuable services in connection with the International Congress on Accounting; to the Chairman (Mr. H. L. H. Hill) and the Vice-Chairman (Mr. Henry Morgan) and Members of the Executive Committee of the Congress for the arrangements made; to the Secretary (The Hon. George Colville) and the Assistant Secretaries (Mr. R. W. Banks and Mr. A. A. Garrett) for their work in organising the Congress."

SOLICITORS ACT, 1933.

An Act to amend the law relating to solicitors by providing for the making and enforcement of rules as to the keeping of accounts for clients' moneys and other matters of professional conduct.

COUNCIL OF LAW SOCIETY TO MAKE RULES AS TO CERTAIN MATTERS.

1. The Council of the Law Society shall make rules—
 - (a) as to the opening and keeping by solicitors of accounts at banks for clients' moneys; and
 - (b) as to the keeping by solicitors of accounts containing particulars and information as to moneys received, held or paid by them, for or on account of their clients; and
 - (c) empowering the Council to take such action as may be necessary to enable them to ascertain whether or not the rules are being complied with; and may, if they see fit, make rules for regulating in respect of any other matter the professional practice, conduct, and discipline of solicitors:

Provided that rules made under this section shall not come into operation until they have been approved by the Master of the Rolls.

CONSEQUENCES OF FAILURE TO COMPLY WITH RULES.

2.—(1) If a solicitor fails to comply with any of the rules made under the preceding section, any person may make a complaint in respect of that failure to the disciplinary committee.

(2) The provisions of Part I of the Solicitors Act, 1932, shall apply in relation to complaints under this section as they apply in relation to applications to the committee under the said Part I:

Provided that in addition to the powers conferred on the committee by subsection (2) of section five of the said Act the committee and, upon appeal, the High Court shall have power to impose on the solicitor a penalty not exceeding five hundred pounds, and any penalty so imposed shall be forfeit to His Majesty.

DISCRETION OF REGISTRAR TO REFUSE PRACTISING CERTIFICATE IN CERTAIN CASES.

3. Section thirty-eight of the Solicitors Act, 1932, (which gives a discretion to the Registrar of Solicitors to refuse to issue certificates in special cases) shall, in addition to the cases mentioned therein, apply to the case where a solicitor applies for a certificate to practise without having paid any penalty imposed upon him under the last preceding section, or any costs ordered to be paid by him under that section or under Part I of the Solicitors Act, 1932.

SAVING FOR CERTAIN PUBLIC OFFICERS.

4.—(1) In the case of a solicitor employed as a public officer, rules made under paragraph (a) or paragraph (b) of section one of this Act shall not apply to him so far as regards moneys received, held, or paid by him in the course of his employment as such public officer.

(2) In this section the expression "public officer" means an officer whose remuneration is defrayed out of—

- (a) moneys provided by Parliament; or
- (b) the revenues of the Duchy of Cornwall or the Duchy of Lancaster; or
- (c) the common fund of the Ecclesiastical Commissioners; or
- (d) the general fund of Queen Anne's Bounty; or
- (e) the fund of the Electricity Commissioners; or
- (f) the Forestry Fund; or
- (g) the Development Fund; or
- (h) any other revenues or fund for the time being prescribed by the Treasury.

SAVING FOR CERTAIN COUNTY OFFICERS.

5.—(1) Rules made under paragraph (a) or paragraph (b) of section one of this Act shall not apply to a solicitor who holds an office to which this section applies and who does not engage in private practice as a solicitor, and, in the case of a solicitor who holds such an office and who engages in private practice as a solicitor, such rules shall not apply to him except so far as regards moneys received, held, or paid by him in the course of such private practice.

(2) The offices to which this section applies are the offices of clerk of the peace of a county, deputy clerk of the peace of a county, clerk of a county council, deputy clerk of a county council, clerk to the visiting committee of a mental hospital, and clerk of the lieutenancy, and any other office connected with the administration of the county to which a person has, whilst holding any of the offices above mentioned, been appointed by the court of quarter sessions or the county council or a joint committee of the court of quarter sessions and the county council, or a committee of either of them.

SAVING FOR CERTAIN OFFICERS OF LOCAL AUTHORITIES AND OF STATUTORY UNDERTAKERS.

6.—(1) Rules made under paragraph (a) or paragraph (b) of section one of this Act shall not apply to any solicitor who is in whole-time employment as an officer of a local authority or of statutory undertakers and does not engage in private practice as a solicitor.

(2) In this section—

the expression "local authority" means any body having power to levy a rate, as defined for the purposes of the Rating and Valuation Act, 1925, or to issue a precept to a rating authority; and the expression "statutory undertakers" means any person authorised by or under an Act of Parliament, or an order having the force of an Act of Parliament, to construct, work, or carry on any railway, canal, inland navigation, dock, harbour, tramway, gas, electricity, water, or other public undertaking.

SAVING FOR SOLICITOR TO THE CITY OF LONDON.

7. This Act shall not apply to the Solicitor of the City of London.

RELIEF TO BANKS.

8.—(1) Subject to the provisions of this section no bank shall, in connection with any transaction on any account of any solicitor kept with it or with any other bank (other than an account kept by a solicitor as trustee

for a specified beneficiary) incur any liability or be under any obligation to make any inquiry or be deemed to have any knowledge of any right of any person to any money paid or credited to any such account which it would not incur or be under or be deemed to have in the case of an account kept by a person entitled absolutely to all the money paid or credited to it:

Provided that nothing in this subsection shall relieve a bank from any liability or obligation under which it would be apart from this Act.

(2) Notwithstanding anything in the preceding subsection, a bank at which a solicitor keeps an account for clients' moneys shall not, in respect of any liability of the solicitor to the bank, not being a liability in connection with that account, have or obtain any recourse or right, whether by way of set off, counter claim, charge, or otherwise, against moneys standing to the credit of that account:

Provided that nothing in this subsection shall deprive a bank of any right existing at the time when the first rules made under this Act come into operation.

SHORT TITLE, CONSTRUCTION, COMMENCEMENT AND EXTENT.

9.—(1) This Act may be cited as the Solicitors Act, 1933.

(2) The Solicitors Act, 1932, and this Act shall be construed together as one Act and may be cited together as the Solicitors Acts, 1932 and 1933.

(3) This Act shall come into operation on the first day of January, nineteen hundred and thirty-four.

(4) This Act shall not extend to Scotland or to Northern Ireland.

QUESTIONS IN PARLIAMENT.

Income Tax Appeals.

On July 27th Mr. POTTER asked the Chancellor of the Exchequer whether, having regard to those cases where hardship is suffered by Income Tax payers by reason of appeals by the Crown against decisions of Income Tax Commissioners and of Courts of First Instance in relation to the assessment of the earnings of such Income Tax payers under Schedule D, he will introduce legislation whereby the taxpayers involved in such legal proceedings shall be reimbursed by the State, all the proper legal charges incurred by them in respect of such appeals?

Mr. HORE-BELISHA: My Right Hon. Friend does not consider it advisable to propose any modification of the existing statutory provisions in this matter. As my Hon. Friend is aware, the Board of Inland Revenue are prepared, in suitable cases, in which appeals to the Courts are pending on novel and doubtful questions of general application, to consider proposals that the Crown should, in any event, bear the costs of both sides; but I can see no ground for imposing on public funds the burden of the costs in every case in which the Crown appeals against an adverse decision relating to an assessment under Schedule D.

The School of Accountancy has removed its headquarters for England and Wales to Bush House, London, W.C.2, and in its new headquarters the School has installed a highly efficient organisation, which must prove of great advantage to its many students at home and abroad.

Society of Incorporated Accountants and Auditors.

SOUTH AFRICAN EXAMINATION RESULTS.

MAY, 1933.

Final.

Order of Merit.

WUTH, RICHARD GEORGE, Clerk to A. E. Hurley (Deloitte, Plender, Griffiths, Annan & Co.), 17-18, Royal Exchange Building, Smith Street, Durban. (*Fourth Certificate of Merit, bracketed.*)

ROOD, LEON MAURITZ, Clerk to E. R. Syfret & Co., corner of Burg and Wale Streets, Cape Town. (*Seventh Certificate of Merit, bracketed.*)

Alphabetical Order.

BARCLAY, HENRY GEORGE, Clerk to F. J. Thresher (Deane & Thresher), S.A. Mutual Buildings, Hoffman Square, Bloemfontein.

BROWN, HERBERT JOHN LAW, Clerk to E. Clothier (E. Clothier and Thornton-Dibb), 5, Royal Exchange Buildings, Smith Street, Durban.

CARLSSON-SMITH, STANLEY WILFRED, Clerk to R. Steyn (James Stewart & Steyn), 14-18, United Buildings, 33, Rissik Street, Johannesburg.

CHUBB, GEOFFREY WALTER ASHTON, Clerk to C. S. Freake, Netherlands Bank Buildings, Oxford Street, East London.

DAVIDSON, ALLAN DEMPSTER, B.Com., Clerk to George Mackeurtan, Son & Croser, Old Well Court, 376, Smith Street, Durban.

DOUGLAS, RICHARD WILLIAM FREDERICK, Clerk to J. E. P. Close & Co., Colonial Mutual Buildings, 106, Adderley Street, Cape Town.

EDMUNDS, GUY HARRY ROBERT (Howard, Pim & Hardy), P.O. Box 338, Kimberley, Practising Accountant.

FÖRBE, LESLIE WILLIAM, Clerk to S. C. Carruthers (Carruthers, Tucker & Higgerty), 29, Calcutta House, Loveday Street, Johannesburg.

HERBERT, FREDERICK, Clerk to G. E. L. Horne (Compton & Horne), 374, Smith Street, Durban.

MACKINNON, FINLAY PATRICK, formerly Clerk to George Mackeurtan, Son & Croser, Old Well Court, 376, Smith Street, Durban.

OGILVIE, COLIN GORDON, Clerk to H. P. Webber (Goldby, Panchaud & Webber), Beresford House, 86, Main Street, Johannesburg.

SANDLER, KALIE, B.A., Clerk to Kenneth White & Co., Court Chambers, Keerom Street, Cape Town.

SMETHERHAM, JOHN FRANCIS, Clerk to R. E. Garwood (Price, Waterhouse, Peat & Co.), 10-14, Standard Bank Chambers, Commissioner Street, Johannesburg.

STEWART, JACK ALEXANDER, Clerk to O. W. Compton (Compton & Horne), 374, Smith Street, Durban.

SUTHERLAND, FELIX WILLIAM, Clerk to J. H. Elwes Wilson (G. K. Tucker & Wilson), 42, Calcutta House, Loveday Street, Johannesburg.

TAYLOR, ROBERT THOMAS CAVIL, Clerk to S. R. Barnes, Somerset House, Vermeulen Street, Pretoria.

TURNER, ALEXANDER RONALD, Clerk to Hemphill, Anderson & Co., Yorkshire House, corner of Rissik and Marshall Streets, Johannesburg.

WALKER, JAMES SAMPSON, Clerk to R. A. H. Palmer, 53, Permanent Buildings, Harrison Street, Johannesburg.

YOUNG, SYDNEY WILLIAM WAYLAND, Clerk to Lane, Lawrie & Sinclair, North British Buildings, Simmonds Street, Johannesburg.

(22 Candidates failed to satisfy the Examiners.)

Intermediate.

Order of Merit.

JACOT-GUILLARMOD, MARCEL HENRI, Clerk to F. J. Thresher (Deane & Thresher), S.A. Mutual Buildings, Hoffman Square, Bloemfontein. (*Second Place Certificate and Prize, bracketed.*)

Alphabetical Order.

COWELL, LUKE, Clerk to A. S. Hooper (Deloitte, Plender, Griffiths, Annan & Co.), Norwich Union Buildings, St. George's Street, Cape Town.

DORRINGTON, JOHN NEVILLE, Clerk to K. W. Johnston (E. R. Syfret & Co.), corner of Burg and Wale Streets, Cape Town.

HORWITZ, SAMUEL, Clerk to Levy & Co., 106, Adderley Street, Cape Town.

KAY, DONALD MCGREGOR, Clerk to F. B. Gibbins (Price, Waterhouse, Peat & Co.), 10/14, Standard Bank Chambers, Johannesburg.

MURPHY, GERALD PATRICK, Clerk to R. B. Taylor (McKechnie & Taylor), 11-16, Reids Buildings, 92, Main Street, Johannesburg.

MURRAY, WILLIAM ALFRED, Clerk to G. E. L. Horne (Compton & Horne), 374, Smith Street, Durban.

ROBERTSON, ANGUS STRUAN, Clerk to A. D. Hodgson (Douglas, Low & Co.), North British Buildings, Commissioner Street, Johannesburg.

RUSH, MAURICE WALCOTT, Clerk to F. C. McConnell (Deloitte, Plender, Griffiths, Annan & Co.), 201, Consolidated Building, Johannesburg.

WALLACE, ROBERT EDWARD, Clerk to J. D. A. S. Low (Douglas, Low & Co.), North British Buildings, Commissioner Street, Johannesburg.

(13 Candidates failed to satisfy the Examiners.)

Preliminary.

Alphabetical Order.

JACKSON, JOSEPH DUDLEY, 49, Doris Street, Kensington, Johannesburg.

VENN, OLIVER CLAUDE, Dalebrook Farm, P.O. Sandown, Johannesburg.

(2 Candidates failed to satisfy the Examiners.)

Professional Appointment.

Mr. W. E. Wall, F.S.A.A., has been appointed Chief Inspector of the National Insurance Audit Department. Mr. Wall was originally appointed an Inspector of Audit at Birmingham when the Department was constituted by Act of Parliament.

Incorporated Accountants' Golfing Society.

The Autumn Meeting of the Society will be held at Coombe Hill Golf Club, Kingston, Surrey, on Thursday, September 28th.

A Medal Competition will take place in the morning, and four ball matches will be arranged in the afternoon. A prize will be awarded to the member with the best aggregate score for the Spring, Summer and Autumn Meetings held this year.

It is hoped there will be a large attendance of members and guests.

International Congress on Accounting.

The following is a continuation from our last issue of the record of the proceedings at the International Congress on Accounting held in London from July 17th to July 21st, and of the visits to Scotland and Ireland which followed.

On Wednesday, July 19th, a Paper was read on CAPITALIST COMBINATIONS IN INDUSTRY IN THE LIGHT OF PRESENT-DAY NEEDS.

BY

Mr. C. HEWETSON NELSON, F.S.A.A.,
Liverpool.

The chair was occupied by Mr. T. H. HUGHES (President of the Corporation of Accountants).

Mr. HEWETSON NELSON said:—

1. It is well, in times like the present, to recall that our predecessors faced as intense a depression, and difficulties relatively as great, as those which confront the nations of the world to-day.

A CENTURY'S PROGRESS.

"The present moment is one of great distress," wrote the *Edinburgh Review* in 1830, "but how small will that distress appear when we think over the history of the last forty years: a war, compared with which all other wars sink into insignificance; taxation, such as the most heavily taxed people of former times could not have conceived; a debt larger than all the public debts that ever existed in the world added together; the food of the people studiously rendered dear; the currency imprudently debased, and imprudently restored. Yet is the country poorer than in 1790? We fully believe that, in spite of all the misgovernment of her rulers, she has been almost constantly becoming richer and richer. Now and then there has been a stoppage, now and then a short retrogression, but as to the general tendency there can be no doubt. A single breaker may recede, but the tide is evidently coming in.

"If we were to prophesy that in the year 1930 a population of fifty millions, better fed, clad and lodged than the English of our time, will cover these islands—that Sussex and Huntingdonshire will be wealthier than the wealthiest parts of the West Riding of Yorkshire now are—that cultivation, rich as that of a flower-garden, will be carried up to the very tops of Ben Nevis and Helvellyn—that machines, constructed on principles yet undiscovered, will be in every house—that there will be no highways but rail-roads, no travelling but by steam—that our debt, vast as it seems to us, will appear to our great-grandchildren a trifling encumbrance, which might easily be paid off in a

year or two—many people would think us insane. We prophesy nothing; but this we say—if any person had told the Parliament which met in perplexity and terror after the crash in 1720, that in 1830 the wealth of England would surpass all their wildest dreams—that the annual revenue would equal the principal of that debt which they considered as an intolerable burden—that for one man of £10,000 then living, there would be five men of £50,000; that London would be twice as large and twice as populous, and that nevertheless the mortality would have diminished to one-half what it then was—that the Post Office would bring more into the exchequer than the excise and customs had brought in together under Charles II—that stage-coaches would run from London to York in twenty-four hours—that men would sail without wind, and would be beginning to ride without horses—our ancestors would have given as much credit to the prediction as they gave to Gulliver's Travels. Yet, the prediction would have been true; and they would have perceived that it was not altogether absurd, if they had considered that the country was then raising every year a sum which would have purchased the fee-simple of the revenue of the Plantagenets—ten times what supported the Government of Elizabeth—three times what, in the time of Oliver Cromwell, had been thought intolerably oppressive. To almost all men the state of things under which they have been used to live seems to be the necessary state of things. We have heard it said that five per cent. is the natural interest of money, that twelve is the natural number of a jury, that forty shillings is the natural qualification of a county voter. Hence it is that, though, in every age, everybody knows that up to his own time progressive improvement has been taking place, nobody seems to reckon on any improvement during the next generation. We cannot absolutely prove that those are in error who tell us that society has reached a turning point—that we have seen our best days. But so said all who came before us, and with just as much apparent reason. 'A million a-year will beggar us,' said the patriots of 1640. 'Two millions a-year will grind the country to powder,' was the cry of 1660. 'Six millions a-year and a debt of fifty millions,' exclaimed Swift, 'the high allies have been the ruin of us.' 'A hundred and forty millions of debt' said Junius, 'well may we say that we owe Lord Chatham more than we shall ever pay, if we owe him such a load as this.' 'Two hundred and forty millions of debt!' cried all the statesmen of 1783 in chorus—'what abilities or what economy on the part of a minister can save a country so

burdened?' We know that if, since 1783, no fresh debt had been incurred, the increased resources of the country would have enabled us to defray that burden at which Pitt, Fox and Burke stood aghast, to defray it over and over again, and that with much lighter taxation than what we have actually borne. On what principle is it, then, when we see nothing but improvement behind us, we are to expect nothing but deterioration before us?"

2. Time has amply justified the *Edinburgh Review*. Despite present anxieties, we look back on a century marked by great social and material progress. Concurrently there has been a rapid growth of large scale enterprise and capitalist combinations in industry, commerce and finance.

In facing the task before me, therefore, I start with the assumption that capitalist combinations are a genuine attempt to improve the trade of the world, to provide the reasonable reward of capital, of enterprise, and of labour, and to improve the general welfare of the people.

3. While endeavouring to face the problem squarely, we must not forget that it is one of those questions in which the short view may well prove a wrong view. To quote a single illustration, we have consistently heard of the dangers of centralisation, and have noted, with some measure of relief, that more recently the principle of decentralisation has begun to operate in several important mergers. The explanation is not necessarily the obvious one, namely, that "the dead hand of centralisation" has proved a failure. Rather the position has been that, with a view to investigating thoroughly the practices of many departments or works, centralisation as a temporary expedient was necessary, in order, at a later stage, to apply the principle of decentralisation as the permanent policy. Even then exceptions are necessary, as very naturally the accounting must be largely centralised.

4. Still speaking in general terms, I am not unconscious of the fact that the law of diminishing returns applies to other worlds than that of agriculture, and that a capitalistic combination may become so top-heavy that the additional dose of organisation, or new capital, fails to produce adequate profits. It is a question of discrimination, and of very delicate discrimination, to determine the psychological moment at which to stop. And having determined it, where is the executive which has the courage to stop? It is so much easier to let the snowball go on, growing bigger and bigger, adding million to million, until the inevitable happens, and safety, at any rate temporary safety, is found in a writing-down scheme.

5. Table I of the statistical data which conclude this paper indicates that during the four years 1928-31 an analysis of twelve companies reconstructed in that period shows that out of £37,587,772 paid-up capital, £28,693,960 (76 per cent.) required to be written off, and new capital obtained to the extent of £8,769,617.

HUMANISING MASS PRODUCTION.

6. There are evidences of an unquiet mind in regard to the reconciliation of adequately large scale and efficient production with the claims of personality and human life. Lord Irwin, speaking in Yorkshire in July last, directed public attention to the subject. He pointed out that there were people who denied that large scale production and the nobler human interests can exist side by side, and that mass mentality must, in the long run, be fatal to individualism. It was evidently the same kind of thought which was at the back of the minds of the writers on "International Industrial Agreements" (League of Nations, Geneva, 1931), when they warned executives of the grave responsibilities incurred by pursuing misguided policies. But even that publication does not specifically touch the question raised by Lord Irwin, although it discusses elaborately the lowering of production and selling costs, the advantages of the quota system, the maintenance of the balance between production and consumption, the effects of industrial agreements on consumers, and the fact that success in all these matters guarantees the worker "a much higher degree of security than isolated undertakings which are more exposed to the ups and downs of a period of economic instability and insecurity."

7. I am, of course, aware that in many of the larger mergers, including Imperial Chemical Industries, a department is set aside under a capable head, which is specially charged with the welfare of the workers, and observation during visits to various works has indicated to me the large measure of success which has attended the labours of these departments. In fact, so great has been that success, that I well remember a well-known Labour leader declaring to me his abhorrence of welfare organisations for the workers on the ground that they delayed the nationalisation of the means of production.

It will be remembered that the late Lord Melchett insisted upon maintaining personal contact with his workpeople, and for this purpose established his system of Works Councils.

The work of the National Institute of Industrial Psychology, in its many-sided activities, is undoubtedly rendering a national service of first-class importance at the present time.

THE ORIGIN AND DEVELOPMENT OF COMBINES.

Competition and Regulation.

8. I propose to give the widest interpretation to the word "combine" (with some subsequent and closer definitions). I include all commercial, industrial and financial organisations, which comprise the fusion or active co-operation of common interests within some regulative scheme of operation, whether loosely formed or closely knit. Combines vary from informal associations of business men, having in view some mutual regulation of their trade or industry, to world-wide organisations, controlling successive stages of production and distribution, from raw material to the retail sale of the finished product.

9. The regulative as distinct from the purely competitive principle of trade and production has

an ancient and historic origin. I suspect that Joseph, as corn controller of Egypt, was representing a powerful food combine which affected a substantial portion of the then known world. The ancient guilds in Great Britain and the Continent of Europe controlled industry and trade, in their then very limited sphere, by regulation and co-operation, thus restraining competition. To-day the small manufacturer or trader who increases the number of his establishments is simply applying in a limited degree the idea of rationalisation and of combination. By utilising his own directing force and initiative over an extended area of trade, he hopes for an expansion of turnover and profits without increasing his prices.

Thus, through history, commerce and industry have been shaped and governed by free competition on the one hand, and by regulation and combination on the other. That is equally true of modern private and capitalistic enterprise.

10. In 1919 the Committee on Trusts set up by His Majesty's Government in Great Britain reported as follows: "We are satisfied that trade associations and combines are rapidly increasing in this country, and may within no distant period exercise a paramount control over all important branches of British trade."

In a report issued by the Economic and Financial Section of the League of Nations on Industrial Agreements in 1930, the Committee stated, "We are witnessing the creation of industrial, commercial or financial organisations on a colossal scale, utilising an enormous capital and extending their activities over the whole world."

11. The operations and activities of combines have forced themselves upon public notice generally, in addition to the close attention which is regularly given to such movements in official and business quarters. The subject is peculiarly appropriate for an International Congress on Accounting by reason of the international scope and influence of combines, and because our professional advice may be sought in regard to their constitution and operation. The anticipation of the Committee on Trusts in 1919 has proved substantially accurate, and the organisation and activities of combines are producing changes in commerce and industry profoundly affecting the economic and social life of western countries. The daily life of every person in these islands, particularly in the urban areas, is touched at some point or another by the activities of a combine.

Natural Monopolies in Great Britain.

12. Transport and public utility enterprises must inevitably be permitted a substantial measure of monopoly within their own spheres. Unrestrained competition would be practically impossible and financially disastrous. Even in that heyday of competitive enterprise, the nineteenth century, the railway companies were established by Acts of Parliament, and endowed with both privileges as to their powers and regulations as to their services and charges to the public. The railway company at its inception was not necessarily a combine, but it had to operate what was necessarily a monopoly.

13. In Great Britain there is in effect Parliamentary regulation of natural monopolies, since all companies launched to carry on public utility undertakings must be constituted by special Acts of Parliament. On the other hand, coming to more recent years, large combines in various industries have been established. They are not subject to any special legislation applicable to combines, but are constituted under the Companies Act, and their operations are subject to common law.

Period 1900 to 1914.

14. It is difficult to assign any exact date when the trend towards combination started in Great Britain, but combinations had made a definite impression on industry and commerce during the later part of the nineteenth century. In 1907 there was published a work by Mr. H. W. Macrosty on the Trust Movement in British Industry, which gave descriptive accounts of various forms of combines in nine groups of industries and trades, but extending to a large number of undertakings. Nevertheless, during this period the dominant force in industry and commerce was still individualistic and competitive.

The War Period.

15. During the Great War the whole organisation and machinery of production were subjected to abnormal pressure under the driving force of government and necessity. There was immense speeding up of invention, technique and organisation, leading to mass-production over wide areas of industry. Conditions were exceptional, and in spite of suggestions to the contrary, it would be irrational for war-time pressure and organisation to be resuscitated in the normal times of peace. The human strain was too great, and intense activity gave way to a reaction, begetting serious industrial consequences.

Period 1920 to 1932: The Rise of Rationalisation.

16. At the same time the industrial experiences of the war period were not lost; they had in fact produced a radical change of attitude. There was less universal adherence to the doctrine of free competition, although the idea of combination generally was still not free from prejudice in the public mind. "Trusts" had not lost the sinister implication derived from the anti-trust campaign in America in the 'nineties. Those trusts, it was alleged, thrived upon exploitation of the consumer and adopted business methods which were open not only to legal but to serious moral objection. In Great Britain, apart from a spasmodic attempt to limit post-war profiteering under the provisions of an Act of Parliament (whose power and operations quickly expired), no anti-combine legislation has been invoked.

17. Combination in industry cannot be adequately considered without some attention to the question of rationalisation.

The slump of 1920-21 (in intensity not comparable to the present position) arose from the general over-production which took place after the war. This position demanded immediate action. The idea of rationalisation, which developed first in Germany with a view to the reorganisation of German industry,

took root elsewhere. Industrial organisation in Germany is now substantially based on rationalisation, operating for the most part through cartels.

18. The great prosperity in the United States of America was characterised by a wide extension of combination, mass-production, high output and intensive sales. Obviously a country which produces 62 per cent. of the world's cotton, 61 per cent. of its petroleum, 40 per cent. of its copper, 37 per cent. of its coal, 34 per cent. of its pig iron, 38 per cent. of its steel and 45 per cent. of the world's electrical energy has much to teach us in the matter of scientific management.

In Great Britain rationalisation was considered, but applied with caution and accepted with limitations and reserves. The last decade has been marked everywhere by rapid progress in science, invention, transport and organisation, lending themselves to the application of rationalisation in industry. Impelled by these forces and by economic instability, the combination movement has exhibited remarkable impetus. Finally, in the report of the Committee on Industry, 1927, under the auspices of the League of Nations, a definite recommendation was made for the application of rationalisation to industry.

19. This report stated that the rational organisation of production and distribution was one of the principal factors in increasing output, improving conditions of labour and reducing costs of production. Its purpose was to secure the maximum efficiency of labour with the minimum effort, to facilitate research into methods of manufacture and to encourage the use and replacement of standard parts; to eliminate waste of raw material and power, to simplify unnecessary transport, excessive financial burdens and the useless multiplication of middlemen. Its ideals were to afford the community greater stability and a higher standard of living, to lower prices of goods adapted to the consumer's needs, to secure a fair and reasonable profit and a fair distribution of it.

20. To the accountancy profession these are familiar principles, the application of which it has constantly recommended. Although the Committee did not say so in specific terms, it has come to be assumed that combination of units in an industry is a first essential to rationalisation. There has been the assumption that the small undertaking is more or less inefficient, and that the principles of rationalisation are incapable of application on a small scale. Such a generalisation in my view is not always tenable. I suggest that rationalisation requires to be seasoned with considerable discrimination.

Rationalisation has undoubtedly been a powerful stimulus to the development of combinations in the last ten years, but a number of combinations have taken place which were not necessarily a response to any sound economic principles, but seem to have arisen from the conjunction of opportunity and leadership.

RATIONALISATION.

21. In the year 1928 Dr. W. H. Coates asked, "What is to be understood by this term?" and in reply quoted with approval the summary given in

"Scientific Management in Europe" (International Economic Conference, Geneva, 1927):—

"Study of methods for stabilising production and employment.

"Standardisation (normalisation, unification, simplification).

"Elimination of waste.

"Horizontal and vertical combination; national and international industrial agreements, cartels, trusts, syndicates; action by governments, by public services, by employers' and workers' organisations.

"Specialisation; mass-production and distribution; study of the general problems of the distribution of raw materials, the organisation of markets, transport power and labour supply."

FORMS OF COMBINATION.

22. The variegated character of industrial and commercial combinations is remarkable. A combine may be carried on simply by casual meetings of those engaged in the same trade, perhaps locally, with hardly any link of effective organisation. At the other extreme, we find the most highly centralised manufacturing and distributing concerns, international in scope and operations. The methods employed to make combines effective are numerous, and it is difficult to generalise in regard to them. Three main divisions, however, seem to have emerged.

23. First there is the Terminable Association, which is a loose association of representatives of a common trade or industry, or of undertakings engaged in various branches of the same or cognate industries. These associations frequently are not constituted as legal entities, but they have sometimes been the most effective in their practice. They have been the subject of some criticism by the public, which views with suspicion and dislike any organisation which might be described as a "ring." Their work has been limited to methods of selling, prices and trade conditions. Sometimes, but less often, they have arranged for an exchange of views on problems common to the trade, but for the most part they have been concerned with the maintenance of prices or the protection of producers against unfair or cut-throat competition.

24. In the next division we find combinations partaking of the character of cartels, more commonly called Pools in Great Britain. "Cartels" are associations of independent undertakings in the same or similar branches of industry established with a view to improving conditions of production and sale. They are called 'syndicates' or 'comptoirs' where they have set up a common sales organisation." (League of Nations Memorandum on International Industrial Agreements, 1931.)

The agreement between undertakings constituting a pool or cartel is more closely defined than in the case of terminable associations, and the cartels are frequently national or even international in character. (For example, the Rubber Restriction Scheme and the European Aluminium Cartel.)

25. In the third division are combinations proper, which in America are usually described as "mergers"; in Great Britain the term "combine" has also been employed. Combines in America were originally operated by trusts, but the method of trusts (the surrender and concentration of voting power) is now obsolete and was prohibited by the Sherman Law and Clayton Acts. Combines generally consist of a parent company (which may or may not be an operating company in itself) enlarged by its own progressive expansion or by the direct amalgamation with itself of other undertakings; alternatively amalgamation may be effected by a new company purchasing outright a number of other small companies which cease to exist. More usually, the parent company acquires the whole or the majority of the shares of other undertakings, the policy of which it controls, and their operations are brought for all practical purposes within its ambit. At the same time, these subsidiary undertakings retain their separate legal existence as companies. In Great Britain we have become familiar with the idea of the holding company and its subsidiaries.

26. A distinction must be made between a "horizontal" and a "vertical" combination. A horizontal combination is a group of undertakings engaged in the same trade at the same stage of production, for example, a drapery combine, or the European Aluminium Cartel. A vertical combination consists of the combination into one organisation of different undertakings, carrying out successive stages in production, from the raw material to the finished article, or even to the retail sale to the consumer. For example, a single aluminium holding company might control—

- (a) A company for producing and shipping bauxite (the raw material);
- (b) A company carrying on the manufacture of alumina (the pure oxide of aluminium);
- (c) A hydro-electric company for supplying power;
- (d) An aluminium smelting company to operate electric furnaces for extracting the metal from its oxide;
- (e) Aluminium rolling mills and foundry company;
- (f) A company carrying on the manufacture of aluminium utensils and parts;
- (g) A company for carrying on the sale of aluminium domestic utensils to distributors or to the public.

THE ORGANISATION AND FINANCE OF COMBINATIONS.

27. In practice a combine may be formed by—

- (a) Outright amalgamation with other companies;
- (b) The formation of a holding company controlling subsidiaries;
- (c) A profit-sharing pool;
- (d) Selling associations.

Amalgamations.

28. Amalgamations have the advantage of definiteness and permanency, but practically it is rather more difficult to effect an outright amalgamation than to use one of the other methods. Amalgamations also involve technical and legal considerations in regard to the transfer of fixed assets. An amalgamation may take place by company A.

acquiring company B., or company B. acquiring company A., or a new company C. acquiring company A. and company B. The method of amalgamation must be carefully considered. I would particularly mention three aspects:—

- (a) The control of future policy;
- (b) The ratio of fixed interest and fixed dividend-bearing capital to the whole capital of each of the companies;
- (c) The rates of fixed interest and fixed dividend to be borne and the terms upon which such capital is to be repaid in the event of winding-up.

By the retention in the amalgamation of blocks of debentures or capital bearing a low fixed rate of interest, the advantages of the combination would accrue to the equity shares, since a heavy new commitment for the repayment of such capital would be thereby avoided.

Holding Companies.

29. A holding (or parent) company can acquire the shares of a number of other companies. The parent company may itself be an operating company. Alternatively, a new holding company may be formed to acquire the capital of all the companies to be formed into the proposed combine. Each company involved remains a legal entity, but the control definitely passes to the holding company and the actual business policy of the subsidiary companies will inevitably be changed, having regard to the interests of the combine as a whole.

Pools.

30. A pool is generally effected by an agreement for the profits of each of the companies (or firms) concerned to be combined into a common fund and distributed in the ratio laid down in the agreement. The ratio of distribution is generally based upon past performance. This may be accompanied by some arrangement as to the operating and selling policy of all those units in the pool. This is the least expensive method of effecting a combine. There would probably be a joint committee to manage the pool. The agreement being for a period of years, its renewal may become the subject of delicate negotiations. Moreover, towards the end of the period, constituent companies in their policy may have undue regard to their interests in negotiating a renewal.

It will be recognised that a number of accounting questions must arise in regard to the computation of profits, the treatment of depreciation, directors' fees and the employment of new capital. These matters, if not carefully handled, may lead to awkward disputes.

Selling Associations and the Rebate System.

31. The method of selling associations is familiar in connection with the German cartel. These associations generally operate by fixing percentage quotas for the various units in the combine, and by a geographical division of markets. While the total output of the combine may not be fixed, each unit has to make a return of its output or sales for a

given period. Compensation has to be paid to a pool when the percentage quota is exceeded, and compensation is received when the quota has not been reached. In such cases it may well happen that it will pay an individual unit to exceed or not to reach its quota. Instances have occurred where it was more remunerative for a very inefficient unit to close down and to rely upon the compensation it received from the pool. Clearly, if this were to go on indefinitely and over any considerable area, the total financial and economic effect would be most unsatisfactory.

32. The rebate system has also been extensively used. Here distributors are required to purchase from the combine only, and to undertake not to purchase similar goods from competitors outside the combine, in consideration of a special periodical rebate.

This is the principle employed by shipping conferences in paying rebates to shippers. Having regard to the special conditions obtaining in the shipping trade and the need for regular services, the rebate system has been reasonably justified.

33. It will be seen from this brief review that the members of the accountancy profession have responsible duties to perform, and in each of these methods of amalgamation must combine professional wisdom with strict impartiality.

Mr. A. E. Cutforth, C.B.E., F.C.A., has written an admirable book entitled *Methods of Amalgamation*, which deals in further detail with the general accounting questions I have outlined in this paragraph.

INTERNATIONAL AGREEMENTS.

34. A short epitome of international agreements may appropriately be set out here.

(a) *International Steel Agreement (E.I.A.).*

35. The report of the Experts of the League of Nations appears somewhat inconclusive—it is stated that the difficulties were great—but the object of the agreement was to regulate production and indirectly to check excessive fluctuations in prices.

(b) *The Franco-German Potash Agreement.*

36. The purpose is to restrict production of German potash to efficient works. The French organisation aims at popularising the use of potash as a fertiliser, and the selling of potash products. The total German output satisfies three-fourths and the combined French and German output nineteen-twentieths of world requirements.

The total supply and the total demand are divided between the members on a quota basis. It is declared that the agreements have been beneficial in—

(a) Stabilising prices for the farmer ;

(b) Keeping prices low to increase demand.

The production for 1926-28 was :—

	Germany. Tons.	France. Tons.	Total. Tons.
1926 ..	1,260,047	352,034	1,612,081
1927 ..	1,518,724	333,273	1,851,997
1928 ..	1,690,469	427,997	2,118,466

(c) A common propaganda policy.

(d) United scientific study to extend the use of potash under varying conditions.

37. The above views, extracted from a League of Nations publication, I submitted to one who has had a long experience in potash. His reply seems sufficiently important to merit (in part) insertion at this point.

"Before the war Germany possessed in Stassfurt and Alsace the only known deposits of potash in the world. I remember in my early days, potash was mined in Germany in the same way as coal in this country, by the individual owners of the various potash mines. The output was sold in open competition at prices up to £3 10s., according to the various qualities of sulphate, muriate or kainit, f.o.b. German ports.

"As the result of the Franco-German War in 1870 the province of Alsace passed to Germany, and in Alsace were discovered immense deposits of potash. Germany practically said to herself—Why should we, owning the only known deposit in the world, give away the benefit of this valuable asset? The result was the formation of the great and powerful Stassfurt Syndicate, embracing in its folds every potash mine in Germany and Alsace, and the price was fixed at £8 10s. f.o.b. German ports, for all the buyers of the world. The Syndicate, backed by the Deutsche Bank, had agents in every country of the world, and enjoyed a world monopoly.

"On the termination of the war, the province of Alsace reverted to France; the French Government immediately appointed a potash controller and entered the world's markets with Alsatian potash. The result was severe competition with Germany, accompanied by a cutting of prices until they reached a low level. This lasted for some considerable time, until an agreement was made between the German and Alsatian interests, followed by a gradual rise in prices.

"Then potash deposits were discovered in Spain and Poland, and now potash production is being developed from the waters of the Dead Sea.

"The U.S.A. never liked the monopoly and spent immense sums of money trying to find potash in various parts of the world without success. During the war she developed potash from her Salt Lake deposits, and is still doing so, but production is expensive as compared with the simple mining operations in Germany and Alsace."

(c) *Artificial Silk.*

38. Leading firms in Europe have combined to form the Bureau International pour la standardisation des fibres artificielles (BISFA) for the purpose of investigating the economic position and international markets, and to establish the standardisation and uniformity of products. It is urged that there is no other solution than to form a kind of cartel.

The Economic Committee of the League of Nations, in the Review prepared by experts (1930), express the broad view that only undertakings which are capable of producing 6,000 kilogrammes (13,227.6 lbs.)

per day, which necessitates a capital of £750,000 or more, "are able to meet the financial requirements of this delicate industry."

The undermentioned figures relating to three artificial silk companies, which were floated within the last eight years, indicate the reason of failure:—

	Estimated output per day.	Estimated Profits.	Capital.
	lbs.	£	£
Company A ..	4,585	120,000	400,000
" B ..	4,800	100,000	385,000
" C ..	3,300	90,000	365,000

Needless to say, none of these figures was realised, and many of these newer companies have ceased to exist, or, at any rate, ceased to produce.

39. About 84 per cent. of artificial silk is produced by the Viscose process, 10 per cent. by the Cupro-ammonium process, and 6 per cent. by the Acetate process. The output has apparently increased enormously during the last 25 years, from approximately 6,000 to over 200,000 tons per annum.

The fact that the prices are about half those of pre-war days indicates the rapid strides made in scientific manufacture.

(d) The European Linoleum Trust.

40. The selling prices in foreign countries are fixed by agreement with the English Linoleum industry (British Association). Since the creation of the cartel in 1910, prices have kept fairly level, reductions occurring in 1927. Owing to the rise in the cost of the principal raw materials—linseed oil and cork—prices of German manufacturers were raised in 1929. It is understood that one large firm in this country remains outside the agreement.

(e) Electric Lamp Industry.

41. The Filament Trust (1911) pooled the patents of three of the largest German firms. In 1919 all the larger producers in this country amalgamated to form the E.L. Manufacturers' Association. The British General Electric is the largest firm, while in 1928 Metropolitan Vickers, British Thomson-Houston and Edison Swan combined under the name of Associated British Industries, Limited. There is also an intermediate company—the Phœbus Company at Geneva—which acts in the exchange of methods and in respect of patents. The objects are the exchange of inventions and experiments, the regulation of prices, limitation of sales, and allocation of sales areas, which are determined on a basis of standard years.

A CRITICAL REVIEW OF THE POLICY OF COMBINES.

Principal Criteria.

42. I suggest the following eight criteria as a guide for reviewing the general effect of capitalist combinations in industry:—

- (a) Stability of prices and maintenance of quality of goods to the consumer.
- (b) The development and application of scientific research and technical improvements for the continual reduction of costs.
- (c) The proper organisation of management and control without undue centralisation.

- (d) The maintenance or increase of profits to shareholders.
- (e) That the capital is in harmony with earning capacity.
- (f) Generous allowance for depreciation and obsolescence (the rate of obsolescence tends to increase, owing to inventions and new methods).
- (g) Adequate provision of liquid reserves.
- (h) The maintenance of good relations with labour and an improvement in labour conditions.

Difficulties.

43. Mr. E. J. H. Lemon, of the London Midland and Scottish Railway, in a recent paper, speaks of the great difficulties encountered in the effort to reorganise the system on a modern basis. Probably in no system did overlapping occur more patently than in the railway systems. Traditions of nearly a century had to be uprooted, with the inevitable creation of dissatisfaction. He said:—

"The whole was a mass of overlapping areas and functions, of different practices and methods, of different traditions and upbringing. What had to be done was to break down century-old *esprit de corps*, at the same time replacing it with new interests and service to a new company."

44. Looking at the problem from a different angle, Dr. Coates, with great insight, writing in 1928 of the innumerable difficulties which had to be faced, said:—

"Even in the most favourable circumstances, the benefit of concentration in large units comes but slowly. Many pitfalls have to be avoided. Over-capitalisation is an ever-present danger, stimulated by the necessity of securing the assent of exchanging shareholders through an increase in the nominal value of the capital held. There is the inclination to attach too high a value to real assets, based on the cost of their reproduction, and on forgetfulness of the fact that once liquid capital has become fixed in industrial plant its worth is governed almost entirely by its earning power. Even that earning power may be turned into capital values on too high a basis by the use of an excessive multiplier, without sufficient allowance for the future provision of internal reserves. In any case heavy initial expenses must first be faced. . . . Compensation cannot be avoided, not only to displaced workers, but to displaced officials, directors, and others. Capital losses will also have to be written off as redundant plants are closed, and as manufacturing operations are gradually concentrated in the most efficient and best situated works."

Administrative Efficiency.

45. The benefits to be derived from scientific research are nowhere more clearly discernible than in the reports of the extensive investigations carried out on the L.M.S. Railway system. To mention a few only of the successes which have followed the scrutiny:—

- (a) Stock items have been reduced by 50,000 items by the elimination of obsolete types of materials.

- (b) Items purchased under contract have been reduced from approximately 6,800 (at the time of the amalgamation) to 4,400.
- (c) Purchases in bulk of stores and materials have been effected upon more favourable terms. Smaller stocks are found to be necessary and economies in handling have been effected.

46. Comparative costing revealed the increased cost of repairing locomotive boilers in England as compared with Scotland, and research provided the reason, namely—"The water in Scotland is so much better." This discovery, of course, led to the installation of water-softening plants in England. A system of progressive repairs to locomotives has reduced the time of laying-up for repairs, of one type alone, from 38 days in 1925 to six days in 1930.

Obviously the consumption of coal came under review, as the expenditure under this heading approximated five millions sterling per annum.

47. In collaboration with the North Eastern Railway, experiments made in the wind tunnel of the National Physical Laboratory gave the following interesting results:—

- (a) In a ten-coach train 20 per cent. of the wind resistance is accounted for by the engine and tender;

8½ per cent. by the first coach;

6½ per cent. by each of the next eight coaches;

9½ per cent. by the tenth coach.

- (b) At 60 miles per hour, without any head wind, about 400 h.p. is absorbed in overcoming the air resistance of such a train.

48. Mr. E. J. H. Lemon, the Vice-President, from whose paper I have quoted, bears testimony to the results which have followed the introduction of "budgetary control." The effect of fixing limits of expenditure undoubtedly has great influence upon the minds of responsible officials.

Whatever we may think of past achievements, we are bound to admit that full systematic control becomes more realisable in the case of a large combine, where the cumulative effect of economies spread over a wide area yields to scientific management a richer reward.

The Public Attitude.

49. We must clearly face the inherent prejudice of the public against combinations. Suspicion is less easily roused than it was some years ago, as I do not think there has been any glaring evidence of rampant exploitation of the consumer. But the danger of public suspicion, whether based on fact or on rumour, lurks in the background. A large part of the Report of the Committee on Trusts in 1919 was devoted to the possibility of abuses tending to the detriment of the public, arising from monopolies, trusts and combines. The Committee found that no definite evidence was brought before them that excessive charges had been made by combinations. It had, however, been made plain to the Committee that distributors and producers did not, in all cases, show the confidence which had been expressed by the witnesses representing combines.

50. Apart from the better-known combines, in the

shares of which the public has a substantial interest, there are in Great Britain a large number of combinations or associations exercising considerable influence, of which the public is scarcely aware. Many of them had dealings with the Ministry of Munitions during the war, and on the whole it was found there was little ground for complaint.

51. The Committee on Trusts of 1919 made a recommendation that the Board of Trade should watch the development of combines and should refer any complaints received to a special tribunal for investigation. The recommendation has never been carried out and apparently subsequent circumstances rendered it unnecessary. Modifications of the proposal, however, may be mentioned. Under the Profiteering Act of 1919, a Committee made certain investigations, but its operations came to an end in 1921. A Food Council has more recently been set up by the Board of Trade, which is authorised, after due inquiries, to give publicity to its opinion as to the prices of certain articles of retail food consumption. Thus there is practically no legal protection, but publicity by the Food Council and generally in the Press of any attempt by combinations to raise prices unduly, is an effective and more desirable check than direct means.

Management and Finance.

52. The organisation of a network of holding and subsidiary companies has become complex and extensive. It may be questioned, therefore, whether a single human mind can readily grasp the implication of a whole scheme in its entirety. Certainly such minds are rare. This aspect of management and control seems to suggest that indefinite expansion must prove unsatisfactory and may lead, failing the most expert management, to serious consequences. It may be reiterated that after a certain size has been reached, additional economies cannot be effected or a reduction in the standard of overhead charges secured.

53. There remains to be mentioned that group of financial considerations relating to capital, profits and reserves.

I suggest that one of the principal difficulties is the necessary inclusion in the combine of weaker units of production. These are included because even though under competition they might have closed down, a long period of weak production and weak selling is bad for the industry, and may also have repercussions on the consumer in the long run. Further, the deficient earning power of the capital representing weaker units has to be made good.

The experience of older combines shows that deficient management and over-capitalisation have been the two vulnerable points.

54. The earlier criticisms of combines were mostly from the consumer's point of view, but I suggest that the emphasis of any possible anxiety in regard to combines may shift from the consumer to the large body of shareholders interested in these giant undertakings.

COMBINATIONS AND THE GREAT DEPRESSION.

55. The policy of combines being to give greater stability in prices and in profits, it is relevant to

consider that policy in relation to the great depression through which the world has passed. If it were ever considered that powerful combinations could offer a barrage of resistance to an incoming tide of economic depression, experience has definitely disproved that hypothesis. Sir Arthur Salter has even indicated that the large-scale organisations of modern business has possibly been an aggravating factor. A combine is inevitably less flexible to certain changes in demand. It is easy for a large-scale organisation, anticipating a rise in prices, to continue production after it has ceased to be profitable. The smaller undertaking more quickly responds to a falling-off in demand.

56. Further, the combines have been peculiarly subject to rigidity in wage rates. Public requirements have been intensified for semi-luxury goods, the demand for which is capricious and very elastic, and subject to rapid changes of fashion and technical improvements. These factors have accentuated the difficulties of combines in times of depression.

57. It can be represented with reason, of course, that the depression having been so overwhelming, the more newly-formed combines were working under totally abnormal conditions, and their efficacy and profit-earning capacity were not therefore subjected to a fair test.

BIG BUSINESS AND SMALL BUSINESS.

58. To illustrate the growth of combines, I append a table (Table II) giving a short list of companies which represent combinations, showing the capital at successive periods since 1900. In one or two cases I have indicated the previous capital of some of the companies which were eventually taken over by the holding company. The list is not intended to be a complete statement in detail, but its main characteristics are illuminating.

59. The growth of "big business" is readily accepted, but the expansion and strength of "small business" in this country may easily be overlooked. Even in these days the Englishman is not persuaded that individualism in relation to business is effete and redundant. We cannot lightly disregard the spirit of independence and self-reliance which the control of smaller companies and firms implies.

60. I append a statement extracted from the annual Board of Trade Report on Companies for the year 1931 (Table III). The average paid-up capital of companies under different headings has been calculated. The private company first came into being in 1908. Private companies generally are inevitably of smaller capital than public companies. In spite of the effect of private companies on the joint figures of both classes, the average capital of all companies on the register has steadily risen since 1910. Similarly the average capital of public companies since 1926 has gone up by a considerable amount, and yet there were over 98,000 private companies on the register for the year 1931 as against 15,000 public companies.

61. The effect of these figures is that 14 per cent. of all companies were public companies and controlled 71 per cent. of the aggregate capital invested in companies, while 86 per cent. of the number of all com-

panies were private companies and controlled 29 per cent. of the aggregate capital (Table IV). The 14 per cent. of public companies does not disclose completely the extent of combination, since, for example, a holding company and, say, its five subsidiaries would count as six companies on the table. I anticipate that the percentage of the number of companies controlling 71 per cent. of the capital is considerably lower.

62. These figures lead to two conclusions :—

- (1) The growth of concentration and combines in public companies.
- (2) The persistence and increase in number of private companies.

As private companies are mostly in the hands, and for the benefit, of a comparatively few individuals, I take those figures to be an unquestioned indication of the vitality and tenacity of individual enterprise. Further, there is a large number of public companies of smaller dimensions which, in spite of the difficult time through which we have passed, have maintained their position in a comparatively satisfactory manner.

63. In regard to our own profession, I would quote an editorial note from the *Incorporated Accountants' Journal* of November, 1929 :—

" 'Rationalisation' is popularly supposed to be the remedy for all industrial troubles. . . . These mergers have far-reaching effects and often bring in their train many unfortunate consequences, including the elimination of independent business men who have to choose between accepting a salaried position and being forced out of business altogether. The accountancy profession also suffers from these mergers. When one large company absorbs a number of separate entities, what were probably a dozen audits by different firms of accountants become one audit by a single firm. The loss falls mainly on the small practitioner, but it must be remembered that there is also a loss in the total volume of professional business and not merely a transfer of business from one firm to another."

64. It is not possible to obtain precisely the number of combines operating in this country and elsewhere, but the following figures are interesting :—

REPORT OF COMMITTEE ON TRUSTS, 1919.

Great Britain—	Number
Iron and Steel Industry	35
Chemicals (controlling production almost wholly)	2
Electric Industries	1
Encountered by the Ministry of Munitions	93
Soap, Tobacco, Wallpapers, Cement, Textiles (securing effective control of output and prices). Number not given.	

U.S.A.—

American Meat Trust	5
LEAGUE OF NATIONS : REVIEW OF . . . INDUSTRIAL AGREEMENTS, APRIL, 1930.	
International Cartels	29

65. I attach a table (Table V) showing the average financial result achieved by eight combines in 1931,

compared with the result obtained by 2,017 other companies. The figures are substantially in favour of the large number of smaller companies. The arguments for rationalisation are convincing; the experience of rationalisation is sometimes disappointing.

PUBLIC UTILITIES.

66. An interesting form of enterprise in Great Britain is the Public Utility Trust, constituted by *ad hoc* Act of Parliament. The trusts are in some cases the combination of a number of previously constituted undertakings. They are financed by stock bearing fixed rates of interest. They are controlled by Boards nominated by various interests, and are free from political influence or interference. Some of these trusts have been conspicuously successful in regard to the services they have provided, and the regular way in which they have earned their interest. I would mention particularly the Port of London Authority, the Mersey Docks and Harbour Board, and the more recently constituted British Broadcasting Corporation and the Central Electricity Board.

67. Having dealt at some length with general principles, we may now make, by way of concrete illustration, a detailed review of combination or merger operations. For this purpose I have selected for investigation as representing commerce: banking, insurance and building society amalgamations; and as representing industry: chemicals.

BANKING.

British Banking Policy.

68. The relationship between industry and banking is so close that a study of capital combinations would be incomplete without a reference to bank amalgamations.

69. At a meeting called to sanction the Midland Amalgamation in 1918, the late Sir Edward Holden—a recognised leader of the policy, which has led to the absorption into his own bank of no less than thirty-three units—summarised the benefits to be expected in the following six points:—

1. "The first benefit accruing to the large banks from these big amalgamations is a large increase in their capital, and a large increase in their resources; but if you are going to stop amalgamations, they will not be able to increase their capital any more on that line."

2. "Big banks will help to increase our commercial exports abroad, and to off-set an unfavourable trade balance after the war."

3. "Every development of amalgamation has rendered the banks more stable, and our recent immunity from the distresses consequent on bank failures has been due to the strengthening of the banks by amalgamation."

4. "But for the amalgamations the banks could not possibly have given adequate assistance to our enormously increased trade."

5. "We have not had a single instance in which the accommodation given by a bank taken over by us has not been much greater after amalgamation than it was before the bank was taken over."

6. "The deposits of this country can be more effectively lent if they are concentrated than if they are scattered."

70. The paid-up capital and reserves of joint stock and private banks in England and Wales, including the Bank of England, covering a period of nearly a century, make interesting reading:—

Year	No. of Banks.	Capital £	Reserves £	Deposits £
1836	—	10,000,000 (estimated)	—	—
1884	109	52,505,000	24,374,000	300,139,000
1914	43	49,405,000	27,093,000	783,553,000
1930	13	91,510,000	66,990,000	1,915,203,000

In September, 1932, the paid-up capital of the ten London clearing banks was £74,311,096 and the reserve funds £51,010,000. Of this capital the Big Five held £64,715,000 and of the reserve £44,750,000.

The net profits of all banks (as given by Sykes) as a percentage of total working resources was 1.88 (1874), .94 (1914), .79 (1920), .57 (1923). Other authorities, taking the percentage on capital plus reserves, contend that an opposite tendency is shown.

71. The percentage of expenses to total working resources of the Union Bank of London rose from .53 in 1879 to .93 in 1913. Amalgamations took place in 1891 and 1902-03 and were followed by increases in expenses. The percentage increase in the case of the London and Westminster Bank was .34 in 1880 with eight branches, .46 in 1908 with thirty-seven branches, 1.26 in 1913. The amalgamation with the London and County Bank took place in 1909. The figures appear to demonstrate a natural increase in the expenses as additional branches are opened, and their business expands. Allowance must, of course, be made for the gigantic growth in the number of small accounts, obviously operated at a higher ratio of expense.

72. On August 2nd, 1923, the late Dr. Leaf referred to a comment by the *Manchester Guardian* on the opening of new branches:—

"The banks themselves are beginning to see that a lust for record figures may be gratified at too great a cost." Dr. Leaf asserted that the only persons entitled to complain were the shareholders, whose profits were devoted in some measure to the opening of fresh branches which could not pay their way for a long time. Before the war, he said, a new branch commenced to pay after it had been opened three to five years, but since the war the period had been about doubled owing to the rise in overhead expenses on the one hand and the severe cutting of profits on the other. In 1825, 554 private banks operated 681 branches. In 1924, 2 private banks operated 2 offices;

13 joint stock banks possessed 8,081 branches.

In 1930, 13 joint stock banks possessed 9,972 branches.

In the first-named year (1825) there was one banking office to every 18,739 of the population; in 1924, one to every 4,777. In that period the population

had increased three times over, while the bank offices had increased twelve times over.

73. On the question of stability it may be recalled that in 1825-26, sixty-three private banks outside London failed, in 1840 twenty-four, in 1841 twenty-six. There have been no failures of importance since 1890, notwithstanding the 1914 and the present crises. On the score of safety, therefore, the superiority of the present system is evident.

In 1890 the Baring Crisis occurred. The Governor of the Bank of England took immediate steps to open a guarantee fund in which the leading joint stock banks were asked to participate. The response was both full and speedy. Undoubtedly much turned on the capacity as well as the willingness of the joint stock banks to subscribe. This was the first occasion on which the large joint stock banks took concerted action, and it was undoubtedly due to the policy of amalgamation that they were strong enough to do so. Further illustration is found in the case of the Yorkshire Penny Bank (now owned by the Big Five), in the war period mobilisation of securities, in the control of exchange rates, and in the formation of the Agricultural Mortgage Corporation, the capital of which was subscribed by the banks.

74. The amalgamations which have taken place between 1825 and 1924, totalling 552, are made up as follows:—

Private with private	103
Joint stock with joint stock	165
Private by joint stock	282
Joint stock by private	2
	—
	552
	—

Foreign Banks.

75. *The Times* pointed out on May 4th, 1918, that the whole industrial, financial, commercial and shipping forces of Germany were being brought together in limited liability companies, and stated that the object of the organisation was that Germany should present an absolutely united front. Our bankers were also aware of the steps being taken by German banks, three of whom, the Deutsche, Dresdner and Disconto, had increased their capitals by 40 per cent. to a total of 52½ millions sterling and their reserves by 60 per cent. to a total of 28½ millions sterling by absorptions since 1914. More recent amalgamations have taken place, at least two in 1929 and one in 1932.

76. The tendency to amalgamation or working agreements is also visible in French banking, though to a much less degree, and one important French bank has entered into close relationship with several institutions in the United States, besides linking up with a South American Bank, on the Board of which it has placed a representative.

77. Another interesting development is an alliance (without amalgamation) between two large South American banks. The allied banks have in turn entered into a working agreement as regards South American business with one of our clearing banks, in furtherance of which the latter has established a subsidiary company with a capital of a quarter of a

million in combination with the newly formed British Trade Corporation.

78. In Canada, too, the Bank of Montreal has taken over the Bank of British North America, and the Royal Bank another institution; and in Australia the National Bank and the Colonial Bank entered into an agreement to amalgamate.

Observations on Bank Amalgamations.

79. The Treasury Committee on Bank Amalgamations of 1918 obviously appreciated that there was a risk both of reduced competition or of monopoly and of the creation of a "Money Trust." Indeed, they go so far as to state that "on a careful review of all the above considerations, we are forced to the conclusion that the possible dangers resulting from further large amalgamations are material enough to outweigh the argument against Government interference." It will be remembered that the Association of British Chambers of Commerce has expressed similar views.

80. It is, however, only just to recall that competition between the great banks is to-day extremely keen. If the banks consider themselves entitled to see the audited balance sheets of customers, professional accountants, at any rate, have no cause for complaint, whatever they may have to say in respect of those extraneous "sidelines" which the banks are cultivating so assiduously in modern times.

81. I referred at an earlier stage to the intimate connection between commerce and banking. A comparison between the figures of the London Clearing Banks for September, 1931, and September, 1932, is illuminating. Deposits have increased in the twelve months by over 153 millions sterling, and investments by 79 millions, while advances to customers have decreased by over 108 millions.

Summary.

82. The available statistics indicate that while expenses have generally increased, profits have decreased, but facilities to the public have undoubtedly been extended. One writer suggests that the increased charges are finally borne by individual customers in the shape of reduced deposit rates and increased loan rates, and urges that if further large amalgamations occur "charges will again be increased."

Undoubtedly liquidity, stability and safety have been secured by amalgamation—a remarkable achievement for these difficult times.

INSURANCE.

83. The chief and more recent amalgamations or absorptions in the insurance world are indicated in the following list:—

Commercial Union:

- Palatine (1900)
- Hand-in-Hand (1905)
- Union (1907)
- Ocean (1910)
- National of Great Britain (1917)
- Edinburgh Life (1919)
- British General (1923)
- West of Scotland (1923)

Royal Exchange :

- National Provincial (1909)
- Car & General (1917)
- Local Government Guarantee (1918)
- State (1924)
- Motor Union (1928)

Northern :

- Royal Scottish (1914)
- White Cross (1914)
- Provident Accident (1917)
- World Marine (1920)
- London & Scottish (1923)

Royal :

- British & Foreign (1909)
- Warden (1913)
- Legal (1916)
- Liverpool, London & Globe (1919)

Yorkshire :

- United Legal (1909)
- London & Provincial Maritime (1913)
- Premier (1913)
- Guarantee Society (1914)
- Commercial of Ireland (1922)

London Assurance :

- British Law (1917)
- Vulcan Boiler (1920)
- Guildhall (1931).

London & Lancashire :

- Standard Marine (1907)
- Australian Alliance (1909)
- Marine (1917)
- Law Union & Rock (1919)
- British Fire (1923)
- Colonial Mutual (1927)

Phoenix :

- Law Life (1909)
- Union Marine (1911)
- Northern Maritime (1917)
- London Guarantee (1922)

84. The capitals of the twelve companies with the largest share capital, in 1931, are shown as follows :—

		<i>Share Capital.</i>	
		<i>Subscribed.</i>	<i>Paid-up.</i>
1. Scottish Union and			
National	£5,650,820	£300,000	
2. Royal	5,599,980	2,799,965	
3. Alliance	5,450,000	1,000,000	
4. Northern	4,519,110	904,161	
5. North British ..	4,500,000	2,437,500	
6. Phoenix	3,792,795	1,005,000	
7. London & Lancashire	3,639,310	1,455,724	
8. Commercial Union	3,540,000	3,540,000	
9. Eagle Star and Brit.			
Dominions	2,998,425	1,092,896	
10. Sun Insurance Office	2,400,000	600,000	
11. Atlas	2,200,000	550,000	
12. Guardian	2,059,971	1,024,578	
	<u>£46,350,361</u>	<u>£16,709,824</u>	

85. It will be observed that the only company in the above list whose subscribed capital is fully paid is the Commercial Union, and that in respect of the remaining eleven companies no less than £29,640,537 is represented by uncalled capital—a substantial

reserve to the companies, but also a remarkably heavy, if ignored, liability of the shareholders.

It will further be observed that no scientific relationship between paid-up and subscribed capital is apparent: on the twelve companies it works out at 36 per cent.

86. While economies have certainly been effected by many offices, the available figures suggest a slight increase in working expenses. A material reduction in premium rates during the past few years has been of benefit to the insuring public.

87. The estimated loss of capital to shareholders in each of the last ten years has been stated to be :—

1921	£1,633,147
1922	4,719,076
1923	749,437
1924	153,000
1925	375,509
1926	1,586,019
1927	47,873
1928	250
1929	258,972
1930	480,300
1931	22,000
	<u>£10,025,583</u>

Of this total £1,955,091 appears to have been lost on transfers to other companies, and £8,070,492 under liquidations.

88. The bases upon which ten amalgamations have been effected during the last few years, set out on page 504, indicate that the absorbing companies are prepared to agree to generous terms, being no doubt largely influenced by the magnitude of the premium income to be obtained :—

Fire Offices Committee.

89. No review of the subject would be adequate without a reference to the operation of the Fire Offices Committee. Other controlling committees, performing similar functions, act in respect of Accident and Life Offices.

90. The Fire Offices' Committee has been in existence more or less in its present form for some seventy-five years. Its membership comprises some 104 offices operating in the home country. Because of this membership such offices are known as and generally styled Tariff Offices. The work of the Fire Offices' Committee consists of :—

(a) Collecting statistics relating to the aggregate experience (*i.e.*, premiums collected and losses paid) of all the offices forming its membership in respect of any class or classes of risk to be reviewed.

(b) On the result of the experience mentioned in (a), compiling rates, conditions and warranties, &c., for each class of risk. The result is seen in the issue of what is termed a "tariff" such as "shipbuilders' tariff," "metal workers' tariff." Similarly old tariffs may from time to time come under review and be re-issued in different forms, and probably ratings increased. To-day there are close upon 100 different tariffs (fire) applicable to different industries.

(c) Framing rules regulating re-insurance business, arbitrations, commissions payable to agents and general rules applicable to all tariffs.

(d) Framing forms of policy and general conditions of insurance.

91. The Committee meet regularly and the procedure is that :—

(a) The chairman must be entirely unconnected with any fire insurance company (the chairman usually belongs to the legal profession and he has no vote).

(b) Each membership office has a representative present and they as a body decide and vote on all matters.

92. The membership of the Fire Offices' Committee or Accident Offices' Association is not of itself a guarantee of the financial stability of a company. Some thirty years ago, I believe £15,000 to £20,000 paid-up capital invested in safe and realisable securities was considered sufficient evidence of stability, and under the Assurance Companies Act, 1909, £20,000 deposit with the Government became necessary before a new company could operate. To-day all reputable companies, whether tariff or non-tariff, demonstrate a much higher standard.

93. Membership of the Fire Offices' Committee or Accident Offices' Association merely implies agreement to stand firmly to the rates and conditions issued from time to time by the two Tariff Associations. In commercial language, it is a price maintenance scheme. There can therefore be no reflection in general upon the companies who remain outside the Tariff Associations, which have become known as Non-Tariff Offices. In Great Britain there are some ten non-tariff offices operating, and generally speaking, they are comparable in strength to any tariff office. There are also some thirty more companies outside the tariff, but these are mostly mutual or denominational and were formed at different times to combat the increasing tariff rates.

94. The real key to any insurance company's financial strength is not the fact that it is tariff or non-tariff, but the ratio of—

Funds to Premium Income ;
Assets to Liabilities.

The larger the premium income the greater the liability, and therefore premium income in itself is no guide.

BUILDING SOCIETIES.

95. An aggregate balance sheet of all societies for the year 1931, contained in the report of the Chief Registrar of Building Societies dated May 6th, 1932, indicates the important position which building societies have attained as financial institutions.

Liabilities.	£	Assets.	£
Capital ..	302,870,608	Mortgages	316,232,546
Deposits ..	44,539,795	Investments	
Loans ..	5,938,639	and other	
Undivided		Assets ..	54,932,414
Profits ..	17,815,918		
	<u>£371,164,960</u>		<u>£371,164,960</u>

96. The rapidity of modern growth is indicated by the fact that during the ten years ended 1930, the additional capital subscribed was £167,637,786, an average of £16,763,778 per annum.

97. The security in the mortgages is very great. Apart from the fact that the value of the property under mortgage, at the lowest estimate, must be in the region of 400 millions sterling, the spread of the risk furnishes a super-gilt-edged security, enhanced as it is by the operation of the reducing tables. Thus the £316 millions outstanding on mortgage are classified as follows :—

(a) Mortgages of £1,000 and under	£259 millions
(b) Mortgages between £1,000 and £5,000	47 "
(c) Mortgages over £5,000	10 "

98. Two or more societies may unite and become one society, with or without any dissolution or division of funds, or one society may transfer its engagements to another, subject to three-fourths of the members of each society present at general meetings assenting thereto, and to concurrence in writing of the holders of not less than two-thirds of the whole number of shares of each society (Building Societies Act, 1874, Sect. 33 ; Building Societies Act, 1894, Sect. 19).

99. Amalgamations are somewhat rare. The latest (1931) was that of three societies in the Midlands, now united as the Birmingham Incorporated Building Society. Special difficulties had to be overcome in this particular amalgamation, owing to one of the societies being really a land society. The result of the amalgamation has been a reduction of working expenses, while the profits have been fully maintained.

100. The amalgamation of the Halifax Permanent Building Society (largest in the world) and the Halifax Equitable Building Society was completed on February 1st, 1928.

The Halifax Permanent Building Society was founded in the year 1853, and at the date of the amalgamation its assets were £32,936,509. The Halifax Equitable Building Society was founded in 1871, and the assets were £14,044,972, the combined assets of the two societies being £46,981,481. The union was a perfectly natural one and took place under conditions which were peculiarly favourable, because the two societies had developed side by side in the same district for a period of more than fifty years. The results of the amalgamation very soon proved to be wholly beneficial to the members, and afforded opportunities for effecting considerable economies in administration expenses, advertising, branch premises and other directions.

Striking evidence of the success attending the fusion of the two businesses is shown by the fact that the combined assets of the societies on February 1st, 1928, namely, £46,981,000 rapidly increased year by year and now amount to over £85,000,000.

101. The larger societies have the advantage of spreading their risks in respect of mortgage assets, but in this matter reliance must be placed upon surveyors' valuations. Where reasonable care and

skill are not exercised by a surveyor, he has been held liable in damages.

102. As to relative working expenses, a calculation made by Mr. James Brace, B.Sc., LL.B., gives the following results :—

Average Value of Assets.	Simple Average of Costs of Administration per £100 of Average Assets.
Up to £200,000 .. .. .	.76
£200,000 to £400,000 .. .. .	.68
£400,000 „ £600,000 .. .. .	.62
£600,000 „ £800,000 .. .. .	.64
£1,000,000 „ £2,000,000 .. .. .	.55
£2,000,000 „ £3,000,000 .. .. .	.43
£3,000,000 „ £4,000,000 .. .. .	.61
£5,000,000 „ £10,000,000 .. .. .	.69
£10,000,000 „ £20,000,000 .. .. .	.65
£50,000,000 „ £60,000,000 .. .. .	.56

The investigation was made on a somewhat limited basis, but it is nevertheless of value, pending a promised report of a more exhaustive nature.

103. The individual share capital and mortgages of societies with over ten millions of capital was, in 1930, as follows :—

	Capital. £	Mortgages. £
Halifax	58,649,614	52,902,784
Abbey Road	27,505,876	27,944,275
Woolwich Equitable	14,540,177	15,066,864
National	11,442,113	11,791,693
Co-operative	10,723,669	11,306,607

104. Generally it may be conceded that the larger societies gain very materially in :—

- Obtaining properly qualified officials, a point of paramount importance.
- Economy in establishment expenses.
- A wider appeal for funds.
- The avoidance of too great a dependence upon local influences.
- The spreading of risks, and the consequent operation of the law of average.

CHEMICALS.

105. Taking one of the more recent English mergers (Imperial Chemical Industries, Ltd.), we have a period of six completed years upon which to endeavour to base a judgment.

In our consideration of the figures we must keep well in mind the difficulties of the period covered—a period of extraordinary depression, especially in the last three years. According to the Index Number of Profit prepared by Sir Josiah Stamp (*The Times*, July 20th, 1932), the general return upon capital as a whole fell from 106.5 in 1927 to 90.0 in 1931, and the return for risk-bearing capital (ordinary shares, &c.) from 111.4 in 1927 to 73.3 in 1931. The index relates to aggregate profits, and is based on a figure of 100 for 1924.

106. The promoters of Imperial Chemical Industries in the "Invitation to accept shares" of December 15th, 1926, expressed the view of the chairmen of the four participating companies that, after making due provision for reserves, the future income

of the new company should exceed £4,000,000. The actual profits of each year, after deducting reserves, both general and obsolescence, set aside out of profits, were :—

	£
1927	4,158,247
1928	4,488,243
1929	5,397,841
1930	4,629,757
1931	3,668,685
1932	4,915,423

The carry-forwards are ignored.

At least two factors are worth consideration in looking at this exceptionally creditable achievement.

107. The capital, originally £56,802,996, was increased by the following amounts in the years indicated :—

	£
1927	1,366,853
1928	8,942,665
1929	19,678,763
1930	19,868,834
1931	20,295,199
1932	20,345,338

These figures are cumulative.

108. The profit return, after deducting amounts set apart to reserves, depreciation and obsolescence, on the share capital (taken as on the first day of each year) was :—

	7.3 per cent.
1927	7.7 „
1928	8.2 „
1929	6.1 „
1930	4.8 „
1931	6.4 „
1932	

The dividends actually paid were :—

	Preference Per cent.	Ordinary Per cent.	Deferred Per cent.
1927	7	8	1½
1928	7	8	1½
1929	7	8	2
1930	7	6	Nil
1931	7	4½	Nil
1932	7	6	Nil

109. Bearing in mind that in the capitalisation of the company the exchange value of the shares was arrived at after taking into consideration future earning capacity and estimated increased profits, the achievement of the company, in view of the state of world trade, is quite noteworthy. It should be mentioned that in 1931 one million and a half sterling was transferred from general reserve to obsolescence reserve, and utilised to write off holdings in subsidiaries, while a sum of half a million sterling was taken from the general reserve for a similar purpose. In 1932 holdings in subsidiaries and other assets were written off to the amount of nearly four and a half millions sterling by the application of a part of the obsolescence reserve and by a withdrawal from general reserve. Over thirteen millions sterling, however, had been credited to the general reserve from profits and capital accretions during the six years. These adjustments have left the obsolescence

reserve standing at four millions sterling and the general reserve at nine and a half millions sterling.

110. From the point of view of the investor, our brief review appears to demonstrate great strength on the part of the company.

From the aspect of costing, clearly a reduction must have been effected, with a general resultant consequence of a fall in prices to the consumer. I have compared the prices of 137 classes of chemical productions for the year 1925 (prior to the merger) and for 1932, and find a material price reduction in over two-thirds of the commodities manufactured.

111. There remains for consideration the important question of labour. The closing of redundant works must have thrown thousands of men on to Unemployment Insurance benefit, but all the available evidence seems to demonstrate that both workmen and officials, whose retirement became inevitable, were treated with a consideration characteristic of the traditions of the original combining firms.

112. The figures are set out in Table VI. of the appendix.

SHIPPING.

113. It is not possible in this paper to do more than refer briefly to the scheme of arrangement carried through last year between the Royal Mail Steam Packet Co. and certain of its subsidiary and associated companies and their respective secured and unsecured creditors. The scheme is not a reconstruction of the group, and its terms do not apply to some of the companies associated with the Royal Mail group. The scheme applies directly to only fifteen companies with a total paid-up capital of £47,000,000, of which approximately £16,000,000 is held by the public, whereas the whole group comprises thirty-seven companies with a total paid-up capital of £82,000,000, of which approximately £26,000,000 is held by the public. The shareholders of the companies concerned have no voice in the affairs at present, and their role is one of passive acquiescence. The creditors' claims, which are affected directly or indirectly by the scheme, approximate to £48,000,000, and the effect of the scheme will be the withholding by the creditors of their rights until December, 1934. The only criticism I would venture to make is that the duration of the scheme, thirty-three months, seems hardly long enough to determine its success

in dealing with the chaotic and conflicting claims and in ascertaining the potential earning power of the companies involved under normal trading conditions.

COMBINES AND LABOUR.

114. This aspect of the question is rather beyond our professional experience, but anxiety is naturally felt at the continued tendency towards the displacement of labour through rationalisation. We have come to see that the actual employment of men for employment's sake is a valuable factor in national life, and I regret that "technological unemployment" cannot be a temporary phase, as in the early days of the Industrial Revolution.

On moral, psychological and financial grounds we cannot afford to have industry, through taxation, supporting a considerable percentage of unemployed persons capable of work. This decade has revealed the immense capacity of finance, organisation, science and labour for the production of natural and manufactured products. Accepting the tendencies towards technological unemployment and the continual increase of output, I suggest a new standard of thought may be required in the future in regard to hours of labour, the organisation of work and the amount of leisure time.

CONCLUDING REVIEW.

115. Sir Arthur Salter, in discussing the effect of large-scale organisation in relation to the economic crisis, considered that to some extent we had lost the advantages of free competition, while not securing the advantages of a deliberate system of large-scale planning. He believed it was possible to combine private initiative with an element of deliberate planning. I am not clear as to the practical implications of such a policy. It may be thought that, in pursuance of a scheme of economic planning, the extension of combines is inevitable; but if I do not mistake the present temper of the public and shareholders generally, I perceive a distinct reaction against the extension and expansion of combines to the exclusion of business carried on in smaller units on a more independent basis.

116. We are living in times when prophecy is as difficult as it is dangerous. The combine movement has come to stay, but alongside of it we may reasonably hope that mankind will receive a generous measure of goods and services supplied by individual enterprise as well as by efficient combines.

Table I, Paragraph 5.

SUMMARY OF TWELVE CAPITAL REORGANISATIONS, 1928 to 1931.

		Capital prior to Reorganisation.		Capital written down.		Capital after Re-organisation.		Further Capital Issued.		Total Reorganised Capital.	
		£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
1928	Sir William Arrol & Co., Ltd.	728,700	0 0	178,020	0 0	548,680	0 0	—	—	548,680	0 0
	Partington Steel & Iron Co., Ltd.	1,600,000	0 0	1,433,333	6 8	116,666	13 4	819,607	15 0	936,274	8 4
	Pearson & Knowles Coal & Iron Co., Ltd.	1,608,500	0 0	1,344,741	13 4	263,758	6 8	115,000	0 0	378,758	6 8
	Baldwins, Ltd.	5,947,848	0 0	3,786,431	18 0	2,161,416	2 0	37,140	8 0	2,198,556	10 0
	Crosses & Winkworth Consolidated Mills	4,000,000	0 0	3,000,225	10 0	999,774	10 0	200,000	0 0	1,199,774	10 0
1929	The Rover Co., Ltd.	1,050,000	0 0	630,000	0 0	420,000	0 0	—	—	420,000	0 0
	Armstrong Whitworth Securities Co., Ltd.	10,012,500	0 0	9,499,637	10 0	512,812	10 0	4,450,000	0 0	4,962,812	10 0
	Sheffield Steel Products, Ltd.	450,035	10 0	396,378	9 0	53,657	1 0	441,167	19 0	404,825	0 0
	Jute Industries, Ltd.	4,500,000	0 0	2,850,000	0 0	1,650,000	0 0	—	—	1,650,000	0 0
	Lipton, Ltd.	2,850,000	0 0	1,827,500	0 0	1,022,500	0 0	—	—	1,022,500	0 0
	William Beardmore & Co., Ltd.	3,925,224	0 0	2,885,112	0 0	1,040,112	0 0	2,114,847	0 0	3,154,959	0 0
1931	Barrow Haematite Steel Co., Ltd.	916,965	0 0	812,500	0 0	104,465	0 0	591,854	0 0	696,319	0 0
		37,587,772	10 0	28,693,930	7 0	8,893,842	3 0	8,760,617	2 0	17,654,459	5 0
				76 per cent.							

Table II, Paragraph 58.

PAID-UP CAPITAL OF FOURTEEN LARGE HOLDING COMPANIES (INCLUDING DEBENTURES).

	Founded	1900			1913			1920			1931		
		Shares	Debtures	Total	Shares	Debtures	Total	Shares	Debtures	Total	Shares	Debtures	Total
1 London, Midland & Scottish Railway Co.	1825	136,295,217	35,771,100	172,066,317	160,189,004	42,582,782	202,771,786	160,284,443	43,608,655	203,893,098	304,897,238	106,141,610	413,778,857
2 Midland Railway Co.	1844	80,065,163	38,019,072	118,084,235	82,564,132	39,022,334	121,586,466	88,562,857	39,022,440	127,585,297	77,008,194	4,775,580	81,783,774
3 Imperial Chemical Industries, Ltd.	1875	2,285,400	2,285,400	4,570,800	3,285,400	3,285,400	6,570,800	15,737,858	3,000,000	18,737,858	14,197,965	2,627,760	16,825,725
4 British Dyestuffs Corporation, Ltd.	1875	1,868,094	1,868,094	3,736,188	4,031,870	4,031,870	8,063,740	11,093,544	3,000,000	14,093,544	14,197,965	2,627,760	16,825,725
5 Nobel Dynamite Trust Co., Ltd.	1875	5,718,670	2,500,000	8,218,670	3,423,926	3,423,926	6,847,852	3,423,926	3,423,926	6,847,852	5,077,740	2,627,760	7,705,500
6 Nobel Industries, Ltd.	1875	2,927,868	1,432,268	4,360,136	11,704,258	2,927,868	14,632,126	46,709,079	2,000,000	48,709,079	14,138,750	6,829,330	20,968,080
7 I.C.I. (Alkali) Ltd.	1875	5,822,188	3,000,000	8,822,188	6,000,000	2,000,000	8,000,000	7,000,000	2,000,000	9,000,000	52,670,310	6,829,330	59,499,640
8 I.C.I. (General Chemicals) Ltd.	1875	3,000,000	330,000	3,330,000	3,000,000	752,400	3,752,400	4,000,000	752,400	4,752,400	7,000,000	2,000,000	9,000,000
9 Imperial Chemical Industries, Ltd.	1875	2,927,868	1,432,268	4,360,136	11,704,258	2,927,868	14,632,126	46,709,079	2,000,000	48,709,079	14,138,750	6,829,330	20,968,080
10 Imperial Chemical Industries, Ltd.	1875	137,083	137,083	274,166	1,410,188	818,675	2,228,863	2,866,906	818,675	3,685,581	2,270,133	818,675	3,088,808
11 Imperial Chemical Industries, Ltd.	1875	15,015,097	13,018,097	28,033,194	15,015,097	13,018,097	28,033,194	15,015,097	13,018,097	28,033,194	15,015,097	13,018,097	28,033,194
12 J. & P. Coats, Ltd.	1884	5,408,680	2,000,000	7,408,680	10,000,000	315,329	10,315,329	12,000,000	9,125	12,009,125	32,000,000	20,250,000	52,250,000
13 Underground Electric Railways Co. of London Ltd.	1902	2,500,000	3,000,000	5,500,000	5,059,948	14,430,400	19,490,348	5,059,948	15,135,450	20,195,398	10,700,900	8,023,000	18,723,900
14 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
15 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
16 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
17 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
18 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
19 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
20 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
21 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
22 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
23 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
24 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
25 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
26 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
27 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
28 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
29 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
30 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
31 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
32 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
33 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
34 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
35 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
36 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
37 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
38 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
39 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
40 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
41 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
42 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
43 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
44 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
45 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
46 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
47 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
48 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
49 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900
50 United Dairies, Ltd.	1915	2,320,000	800,000	3,120,000	3,500,000	1,800,000	5,300,000	6,032,465	1,405,880	7,438,345	10,700,900	8,023,000	18,723,900

Table III, Paragraph 60.

STATISTICS OF PAID-UP CAPITAL OF COMPANIES ON THE REGISTER AT THE BOARD OF TRADE.

All Companies on the Register, Public and Private.
(Private companies were first recognised 1907.)

Date	No. on Register having a Share Capital	Paid-up Capital	Average Paid-up Capital
April 30, 1885	9,344	£494,909,862	£52,906
1900	29,730	1,662,641,416	54,580
1910	51,787	2,178,619,734	42,000
Dec. 31, 1920	79,541	3,508,012,486	44,103
1925	95,055	4,470,366,797	47,029
1926	97,588	4,636,613,382	47,512
1927	101,931	4,857,742,862	47,633
1928	105,729	4,977,914,258	47,682
1929	108,698	5,200,126,098	47,840
1930	111,801	5,484,440,672	49,020
1931	114,295	5,514,773,901	48,230
Public Companies on the Register			
Dec. 31, 1926	16,240	3,180,459,019	195,841
1927	16,556	3,389,989,518	204,759
1928	16,735	3,516,634,773	209,530
1929	16,922	3,607,934,162	218,528
1930	16,263	3,893,937,840	239,438
1931	15,564	3,896,668,416	250,864
Private Companies on the Register			
Dec. 31, 1926	81,348	1,456,154,363	17,900
1927	85,375	1,467,753,344	17,193
1928	88,904	1,461,279,485	16,420
1929	91,776	1,502,191,936	16,368
1930	95,598	1,590,511,832	16,688
1931	98,731	1,618,105,485	16,889

Table IV, Paragraph 61.

PROPORTION OF PRIVATE TO PUBLIC COMPANIES, December 31, 1931.

	No. on Register	Per cent.	Capital	Per cent.
Public Companies	15,564	14	£3,896,668,416	71
Private Companies	98,731	86	1,618,105,485	29
Total	114,295	100	5,514,773,901	100

Table V, Paragraph 65.

IMPERIAL CHEMICAL INDUSTRIES, LTD., Analysis of Accounts, &c., 1927-32.

Taken from the *Economist*, February 15th, 1930,
and February 4th, 1933.

Table VIII.

MONTHLY STATEMENT OF AVERAGE WEEKLY BALANCES OF LONDON CLEARING BANKS
(000's omitted).

1902, September	Barclays Bank Ltd.	Coutts & Co.	Glyn Mills & Co.	Lloyds Bank Ltd.	Martins Bank Ltd.	Midland Bank Ltd.	National Bank Ltd.	National Provincial Bank Ltd.	Westminster Bank Ltd.	Williams Deacon's Bank Ltd.	Aggregate
<i>Assets</i>	£	£	£	£	£	£	£	£	£	£	£
Coin, Bank and Currency Notes and Balances with the Bank of England ...	37,038	1,559	3,082	37,329	8,190	42,092	3,027	27,636	28,468	3,384	192,655
Balances with, & Cheques in course of collection on, other Banks in the United Kingdom ...	6,630	470	685	6,122	1,060	6,283	158	6,346	6,386	1,302	36,048
Items in Transit ...	—	—	—	2,205	630	—	—	—	—	—	2,835
Money at Call and Short Notice ...	21,407	2,171	3,769	20,287	5,714	17,139	5,295	15,476	17,997	4,478	118,733
Bills Discounted ...	68,633	3,482	398	89,557	10,435	90,815	1,818	59,277	64,897	2,914	392,226
Investments ...	76,558	4,315	11,088	56,841	28,031	74,007	15,866	48,303	59,365	8,606	382,980
Advances to Customers and other Accounts ...	159,247	8,072	10,832	152,943	30,220	177,506	15,431	125,436	110,921	12,082	802,690
Liabilities of Customers for Acceptances, Endorsements, &c. ...	5,128	561	1,713	24,253	3,302	12,934	19	5,798	19,541	1,562	74,811
Bank Premises Account ...	7,265	412	695	7,938	2,948	10,810	772	7,193	5,864	1,047	44,944
Investments in Affiliated Banks ...	6,694	—	—	4,171	—	7,294	—	2,514	2,902	—	23,665
	389,500	21,048	32,212	401,646	91,130	438,880	42,386	297,979	316,431	35,375	2,066,587
Ratio of Cash to Current Deposit and other Accounts ...	10.58	8.43	10.57	10.54	10.14	10.51	7.84	10.06	10.16	10.86	10.44
<i>Liabilities</i>											
Capital paid up ...	15,858	1,000	1,060	15,810	4,160	14,248	1,500	9,479	9,320	1,875	74,310
Reserve Fund ...	10,250	1,000	530	7,500	2,900	11,500	1,030	8,000	7,500	800	51,010
Current, Deposit & other Accounts ...	358,264	18,487	28,670	354,078	80,752	400,198	38,571	274,702	280,056	31,138	1,864,918
Acceptances, Endorsements, &c. ...	5,128	561	1,713	24,253	3,302	12,934	19	5,798	19,541	1,562	74,811
Notes in Circulation ...	—	—	—	5	16	—	1,266	—	12	—	1,299
Reduction of Bank Premises Account ...	—	—	239	—	—	—	—	—	—	—	239
	£389,500	£21,048	£32,212	£401,646	£91,130	£438,880	£42,386	£297,979	£316,431	£35,375	£2,066,587

Paragraph 88.

Date	Name	Date Formed	Subscribed Capital	Paid-up Capital	Transferred to	Purchase Consideration	Price per Share	Market Price of Shares prior to the Fusion
1922	British Equitable	1854	30,000 at £10, 23s. paid	£ 34,500	State	£ 112,500	£ s. d. 3 15 0	£ s. d. 3 10 0
	London Guarantee and Accident	1869	5,000 Prefrs., £5 fully paid 44,823 Prefrs., £1 fully paid 125,000 Ords., £1 fully paid	194,823	Phoenix	2,444,823	19 0 0 (ordinary)	10 5 0
1923	British Fire	1908	492,000 £1 each, 4s. paid 8,000 £1 each, fully paid	106,400	London and Lancs.	292,000	Partly paid 11s. Fully pd., 55s.	0 10 0
	London & Scottish State Assurance	1862 1891	120,000 £5, £1 paid 100,000 £8, £1 paid	120,000 100,000	Northern Royal Exchange Commercial Union	840,000 1,100,000	7 0 0 11 0 0	4 10 0 8 10 0
	West of Scotland	1886	50,000 £5, £1 paid	50,000	Commercial Union	462,500	9 5 0	9 10 0 (on rumour of amalgamation)
1925	Hibernian Fire & General	1908	200,000 £1, 4s. paid	40,000	Guardian	100,000	0 10 0	0 6 0
1926	British General	1904	700,000 £1, 5s. paid	175,000	Commercial Union	1,942,500	2 15 6	1 17 6
1927	Motor Union	1906	174,543 5½% Pref., £1 fully paid 200,000 Ords., £1 fully paid	374,543	Royal Exchange	Not available, but over 1,500,000	9 16 0	7 15 0 (only shares held by public)
1931	Guildhall	1919	249,998 £1 each, 10s. paid 2 £1 each, 20s. paid	125,001	London Assurance	606,250	Equals £4 17 0 per £1 paid up	—

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- Report of the Committee on Trusts appointed by the Ministry of Reconstruction, February, 1918, dated April 24th, 1919.
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- "Present-day Tendencies of Industrial and Commercial Development." Lecture by W. H. Coates, LL.B., B.Sc., Ph.D. *Incorporated Accountants' Journal*, March, 1928, p. 202.
- "The Service of Accountancy in the Present Age." Lecture by C. Hewetson Nelson, F.S.A.A. *Incorporated Accountants' Journal*, October, 1930, p. 15.
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Published Accounts of the following combines :—

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Amalgamated Anthracite.
Associated Electrical Industries.
Cables and Wireless.
Imperial Chemical Industries.
Turner and Newall.
Unilever.
United Molasses.

Discussion on Mr. Hewetson Nelson's Paper.

MR. WALTER A. REID, C.A., LL.D., in opening the discussion, said that Mr. Nelson had covered the subject from many angles—if not from all possible angles—and he was assuming that they would expect from him only a general line of thought to bring out the phase of the problem most appealing at the present day. Mr. Nelson clearly accepted the need of combinations with the general preamble of stability of prices, improved quality, economies in cost, and with scope for scientific research, while (paragraph 49) he stressed the "inherent prejudice of the public against combinations"; and again (paragraph 116) he wrote "The Combine movement has come to stay, but alongside of it we may reasonably hope that mankind will receive a generous measure of goods and service supplied by individual enterprise as well as by efficient combines." In the former quotation, said Mr. Reid, the writer had spoken of combinations and in the latter combines. His meaning, however, was unmistakable; though combinations would include combines and associations, cartels for price-fixing, selling areas, pools, quotas, &c., &c., the word "combinations" might also refer to clothing the subject! In paragraph 53 Mr. Nelson had stated "The experience of older combines shows that deficient management and over capitalisation have been the two vulnerable points." On the historical side Mr. Nelson's review seemed to be most exhaustive, as his criticism and his suggestions were of great practical importance. He would say at once that he was not going to write a treatise, nor was he to specify the virtues or errors of any of the combines or associations, but try to lead on to the problems of everyday needs. In the price of an article, four voices were required, with varying tones of intensities. They were :—(1) Labour, with the loudest voice of all; (2) Brains and enterprise, with restraint; (3) The Capitalist—i.e., the shareholders—more or less quiescent but they could be shepherded and led by leaders, more or less genuine; (4) The patient and good natured consumer. And there was an intensified new force, in the modern power of the Press. He was prepared to admit the present day need of Capitalist Combinations in Industry, though only for the mighty populations, the masses of individuals, with increased demands for a higher scale of living, manifold requirements, for luxury, for comfort, for technical education, for recreation, &c., &c. They all necessitated new organisation, in management, in service, in the arts, in research, in inventions, in propaganda—all which were seriously affecting old standards of the domestic hearth and of craftsmanship. He said, in passing, take (1) the tobacco combinations. The quality was good and the price was cheap. The slight competition was doubtless welcomed by the tobacco magnates. Their aim was geographical selling areas. Let them beware of women's fashions! If the ladies ceased to smoke and returned to chocolates, what then for the dividends? Take Levers; in its foundations and great ramifications, at first concentrated, then wide, and then wild. The great pioneer desired to buy the world. First, he sold margarine cheaply for many years, but it was not for love of his customers. The size of the unit meant an annihilation of local effort and incentive. With experience, the railway magnates might soon again come into favour by new methods and cutting down of capital assets not represented by real values, but the cost of reconstruction would be colossal, and reactions far reaching. There were visible signs of existing combines rectifying their errors in capitalisation, in sounder policy regarding diversified and unrelated

activities, in practical as against theoretical qualifications for management, and in full co-operation, industry with industry—not crushing out but rather encouraging competition, with the greater chance of progress through the stimulation of healthy rivalry. The ideal unit was when there was one co-ordinating personality with the instinct of decision and a practical knowledge of details—a man who would not, for example, have allowed the Vickers Engineering combine to try and carry on a cotton mill. In that case £2,000,000 to £3,000,000 had to be written off capital. Would such a person have permitted the setting up of watertight compartments in management without co-ordination? He had met cases where stocktaking was carried out from the office books. It could not be denied that the aim of a combine was to snatch a monopoly—snuff out all competition. Disastrous results from these efforts had been frequent. A monopoly generally carried the seed of its own decay—in staleness and rivalries of huge staffs; also nepotism and inter-marriage of personnel without fresh blood. Railway companies had been blamed for that. Besides, a challenging monopoly would one day be attacked by the patient consumer; and Balaam's ass would speak! This question of Government regulation was always present, and while great combines permitted competition (though slight) and provided quality with price—e.g., tobacco or soap, there would be no need for Government interference and far less for much dreaded nationalisation. Two plain problems of common knowledge were:—

(a) Price to the public	2s.
" " producer	1s.
	—
To the middleman 100 per cent. ..	1s.

Was that fair?

(b) How to let the manager manage and the director direct? It was fundamental; but there was not the time to enlarge on those conditions of successful achievement.

Was there superabundance of food, &c., in the world to-day? No, if the needs of Central Europe were met, the surplus stocks would melt like snow in summer. Oh! those exchanges—Chinese puzzles! Sir Arthur Salter remarked:—"I perceive a distinct reaction against the extension and expansion of combines to the exclusion of business carried on in smaller units on a more independent basis." There was profound interest in watching the proposals to save the world to-day by violent and speedy methods, glorifying the masses and leaving out the individual who still bore the responsibility. Wait and see. Doubtless the suspense or modification of democracy was required just at present. There was no system perfect; but hear the text of the Poet—

"For forms of Government let fools contest;
What'er is best administered is best." (Applause.)

Mr. G. R. FREEMAN, F.C.A., said that one's first impressions on a perusal of the paper were that the author had given them the benefit of deep research and had collected a mass of instructive and interesting information, the detailed discussion of which would be impossible within the limit of time available during the Congress. For his own part he proposed to treat it as far beyond an address and more in the nature of a work of reference. He congratulated Mr. Hewetson Nelson most heartily on his splendid contribution to their deliberations. Further consideration of the paper rather led to the conclusion that Mr. Nelson had not fully justified his assumption in paragraph 2, that "Capitalist combinations are a genuine attempt . . . to improve the general welfare of the people." That quotation reminded him of an opinion he ventured to express on a previous occasion to the effect that "change is not necessarily progress, and so called progress does not necessarily always seem to be to the benefit of the greatest number." Undoubtedly there were many instances where capitalist combinations had been, in the long run, much more harmful than beneficial to the general welfare, and the evils had been accentuated by the temptation to over capitalisation in some cases. They would gather from his remarks that he was to some extent

an individualist, but at the same time he must confess that the tendency to capitalist combinations was bound to occur, and was in his view likely to increase rather than diminish. The effect would, of course, be that the "small man" would find his opportunities more and more circumscribed, and instead of being the owner of his own business he would be in the position of an employee of some greater or lesser combination. There would even appear to be some trend in that direction in their own profession, and the concluding remarks of Mr. Keens yesterday afternoon in connection with Sir Albert Wyon's paper deserved careful consideration. In paragraph 23 Mr. Nelson referred to the form of combine which he designated "The Terminal Association." He, the speaker, thought they might say that the "Shipping Pools," which were so much in evidence at the end of the last century, were early illustrations of this form of combine. Properly worked, they were protection not only to the producer, but also to the middleman, and the consumer, by their maintenance of the stability of freight charges, and thereby the fixity of one large item of cost to the importer in the overseas dominions or in foreign countries. Being loosely knit, however, they were usually vulnerable either to outside competition or to internal dissensions. Some 25 years ago he was concerned in the affairs of a man who, by somewhat unscrupulous methods, succeeded in forcing a combine of this kind to give him preferential treatment, with unfortunate results to the traders of the country to which the particular shipping lines operated. His action temporarily forced down the price of a certain commodity in that country, with uncertainty as to the future trend, not only of price, but also of supplies. That uncertainty greatly upset the market, and most of those interested either as producers, shippers, or consumers, were relieved when the "Ring" was re-formed and prices again became fairly stable, though at a higher rate than had formerly prevailed. He called particular attention to Mr. Nelson's quotation from Dr. Coates in paragraph 44, and he ventured to suggest that many of the combines which had taken place since the Great War had experienced some of the pitfalls so clearly set out by Dr. Coates. Referring to paragraph 60 and Table III on page 44, it had to be remembered that the expression "Private Company" was a legal one, and embraced not only small concerns with only a few shareholders but also a fairly large number of companies with considerable capital which were subsidiaries of holding companies. If those subsidiary companies were placed in a different category one would imagine that the average paid up capital of the remaining "private" companies would show a greater decline than £1,511 between 1926 and 1931. The banking amalgamations mentioned by Mr. Nelson had undoubtedly enormously strengthened the financial position, but one heard many complaints as to the inelastic attitude of the "big five" in connection with overdraft or bonus to small traders and others. It might be that, in the old days, private banks were too generous in this respect, and that that was an explanation of the failures in certain years of the 19th century as recorded in paragraph 73. On the other hand one sometimes came across apparently harsh refusals for accommodation, and the rate of interest charged by the banks did not accord with the meagre interest allowed by them on deposits. (Applause.)

Mr. WALTER HOLMAN, F.S.A.A., said before he ventured to comment on the paper which had been placed before them that afternoon, he wished to acknowledge their indebtedness to the writer for the patient research involved in the compilation of so comprehensive a survey of recent industrial development. The application of accountancy principles to that development had been considered yesterday afternoon in the paper on "Holding and Subsidiary Companies," and his only complaint on that score was that this paper should have been the prologue to the other and not the epilogue. The writer of the paper under discussion started with an assumption which in his (Mr. Holman's) view was altogether too wide to be applied generally. The writer assumed "that capitalist combinations are a genuine attempt to improve the trade of the world, to provide the reasonable reward of capital, of

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enterprise, and of labour, and to improve the general welfare of the people." He thought that in making such a statement the writer's wish was father to his thought. Whilst undoubtedly such altruism did exist in the world, he suggested that it was not conspicuously to be found in industry, and he suggested that a truer assumption would be that capitalist combinations are an attempt to reduce and ultimately to eliminate competition. Mr. Nelson had quoted examples where that had been the object and the effect of some capitalist combinations, but he seemed to regard it as an incidental rather than a fundamental consideration. That was where he joined issue with him. He was not going to condemn rationalisation on that ground for unrestricted competition might be as harmful to the true interests of industry as the entire absence of competition, but he did want to point out that as the unrestricted individualism of the Victorian Era led to the exploitation of the worker, so rationalisation, unrestricted by the corrective of competition, might lead to the exploitation of the consumer. And in support of that statement he need only refer them to the impressive example given in paragraph 37 where the writer dealt with the syndicate formed for the control of potash. No industrial system had yet been evolved which was free from the possibilities of abuse in one direction or another, and unless there existed some check on those abuses they would ultimately wreck the system. He suggested that competition was the automatic check on the possibilities of abuse which were inherent in the capitalist system as they knew it in this country, and when that ceased to exist the system itself was in danger. (Applause.)

Mr. G. E. WATSON, F.L.A.A., said he thought they would all appreciate the benefits which might accrue from combines and realise how necessary they were in many phases of business life, but they should also seriously consider their disadvantages under certain circumstances and by discreet advice endeavour to direct their clients along the proper course. There was a real danger, in his opinion, of assuming that if they could only enlarge a concern they would as a consequence make it more efficient. Mr. Nelson had rightly pointed out that they might by so doing hide some of the defects which might be apparent in a smaller undertaking, and a weaker and unprofitable unit was often bolstered up and continued at the expense of the larger concern. People in England were proud of the strength and security of the British banks, but the Treasury Committee in 1918 realised that there was a real danger of a monopoly being created if further amalgamations were permitted. His next point so far as the banks were concerned was that they were in an unique position for obtaining the confidence of their customers, and the way they were obtaining work previously entrusted to the practising accountant was rather disconcerting. A real effort should be made by the profession to see that no undue pressure by the banks was brought to bear on any customer, and that no further inroad was made into the accountant's domain until at any rate such time as the law should state that only the accountant in practice should be permitted to carry out those duties which should rightly be their prerogative. (Cheers.)

Mons. G. P. J. HOGEWEG (Holland) said that as regards the advantages caused by the development and application of scientific research, it could not be denied that much had been done in that direction by the combines. He would like to draw attention to the very important results attained in that regard in Holland by the co-operation of industries which in all other respects were totally independent of each other, and also to the endeavours of the Management Research groups, a great number of which had been operating in England for many years. The combine no doubt rendered the financing and the management of that research work much simpler, but the object could also be attained along other paths. Many of the combines which existed at the beginning of the crisis had not been able to pull through, or would, in all probability not survive the crisis, and either had been or were being reorganised. Would they, in that case, witness a return of a greater number of smaller and independent industries? The writer pointed out that in England beside the

"big business" the "small business" had continued to exist. That was not only in England, but in many, perhaps in all, countries. Was the only reason for that the fact that people in the industries were not persuaded that individualism in relation to business was effete and redundant? He would say "No." (Applause.)

Mr. GODFREY CRAVEN, F.S.A.A., said it seemed to him that his remarks were only going to echo what had already been said, but he would like to stress one or two points which the writer of the paper did not seem to have dealt with in sufficient seriousness and which to his mind presented a very considerable danger. He felt that the writer had not given sufficient importance to the dangers of combines. There was no doubt whatever that transport and public utility companies should have a certain measure of monopoly, but it seemed to him that there were numerous cases of the disadvantages even there. The recent amalgamations of the English railways had not tended to improve the service either for passengers or transport of goods. As a practising accountant he had found many instances where the transport of goods had been hampered rather than facilitated by the railway companies. Regarding the vexed question of maintenance of prices or the protection of producers against unfair competition—that was an activity in which many of the producers themselves had indulged in order to obtain a monopoly which everything should be done to prevent. He could not help feeling that the combines were not barriers against depression. They could not lightly disregard the long years of independence and self-reliance, and that private enterprise was something they should strive for. They should do everything possible to prevent the growth of those large monopolies which crushed out everything which showed any tendency towards enterprise for the benefit of industry and trade generally. (Applause.)

Mr. DAVID ALLAN HAY, O.B.E., C.A., said he thought that to-day they were too much inclined to worship mere circumstance. Whether they had obtained that from their cousins in America or not he could not say, but in considering the question of combines and their development, mere size, mere output and mere figures were not everything, if in the process of achieving those things they were making some losses and encountering some drawbacks. He would suggest to them that sooner or later in this country a closer watch would require to be kept upon combines—a kind of watch which could not be exercised at the present time by shareholders whose voice on matters of effective control was very small indeed, and he suggested that there was a danger in these great combines that where they had a very strong personality in control they had the elements of great disaster if that personality either ran riot or by necessity was removed at a critical time in the history of the company. They had seen in this country a number of great combines with dominating personalities running them who had brought the concerns into great financial difficulties. It was not possible for them as auditors to endeavour to control that tendency. But when they were asked in their professional capacity to advise industries whether they should enter combines—whether they should sell out and receive a cash price for their business or endeavour to carry on, they had got to give that kind of advice impartially and in the best interests of the client. He suggested that they as accountants should do what they could to remedy the worst effects of combination and try to maintain the human element—the local interests—where they possibly could. (Applause.)

Mr. PERCY H. WALKER, F.S.A.A., said that Mr. Hewetson Nelson in his excellent paper had given them that well ordered array of facts and logical reasoning they always associated with his writings. Whilst he had not failed to point out some of the weaknesses of capitalist combinations he certainly inclined to the view that the trend was all to the good, and it was on this point that he was tempted to break a lance with him. He appeared to have read the recommendations of the Committee on Industry of the League of Nations in 1927 in such a way as to concentrate on the one aspect of rationalisation, viz., amalgamation, to the exclusion of all others. He could not help feeling that considerable mischief had been done

by the somewhat glib use that had been made from time to time of the recommendations of that Committee by capitalists who for their own ends had brought about combines which in no way benefited the general community. After all, amalgamation was only one of several recommendations that that Committee made for the suggested improvement of trade conditions, and by no means the most important. As Mr. Hewetson Nelson himself stated, a number of combinations had taken place which were not necessarily a response to any sound economic principles, but seemed to have arisen from the conjunction of opportunity and leadership. It was this very conjunction of opportunity and leadership which was to be feared because of its consequent risk of exploitation. It was particularly noticeable in South Wales where practically all the colliery companies, and particularly the anthracite collieries, had been combined by means of capitalist combinations into one or two groups. Prior to these amalgamations local capital was invested and local labour employed in a large number of separate companies and separate collieries. The combine had closed down many of the pits rather than expend further capital in modernising their equipment, with the result that in many cases the only money which found its way into the mining towns and villages was that which the one time colliers received as unemployment benefit. It had always been a mystery to him why greater use had not been made among the great producing industries of the co-partnership movement which had proved such a complete success in the case of the great gas undertakings. In the co-partnership movement, one of the great weaknesses of the capitalist combine, viz, the suppression of individual development, was avoided. The closer co-operation between labour and management tended directly to develop the individual, whereas the capitalist combination must of necessity tend in the other direction. Under any form of combine with its consequent growth of the producing unit, the joy of craftsmanship was bound to suffer. What man could take real pleasure in creative work when his share of it merely consisted in the turning of a portion of an engine on a turntable? The growth of multiple shops and chain stores and the substitution of the branch store manager for the individual shopkeeper had removed from their civic life a class of man who, having a definite stake in his city was particularly well equipped to direct its affairs and especially its finance. He could not help feeling that capitalist combines were bad for the three following very definite reasons: (1) They were bad for the individual, as they lessened his opportunity of advancement; (2) they were bad for the civic life of the community by the reduction of financially interested ratepayers; and (3) they were bad for the nation as a whole, as the concentration of financial control into a small number of immense units rendered the exploitation of national and racial prejudices for the benefit of some particular vested interest only too easily capable of attainment. (Cheers.)

Mr. C. M. DOLBY, F.S.A.A., said that large scale combinations, or rationalisation of industry as they understood it, so far as this country was concerned, were in nothing more than an experimental stage. Consequently they had not at their disposal that wealth of data, either of a statistical nature or otherwise, that would, if available, afford them some guide as to the advantages or disadvantages of capitalist combinations. After all, the probable future trend of any movement could only logically and intelligently be forecast by a consideration of past events and where that was not possible they descended to the realms of speculation and sheer prophecy. Then again—limiting his observations to events in this country—rationalisation of industry had come to the front during an abnormal period, a period distinguished chiefly in the catastrophic declines in commodity prices and a hitherto undreamed of collapse of the economic fabric. He suggested that those conditions had clouded the issue and to a large extent distorted their vision. Obviously with one hundred factories working half-time it needed no great concentration of one's intelligence to offer the simple remedy of amalgamating those 100 factories; closing down 50 of them and leaving the other

50 to work full time. But were they satisfied, if and when trade revived to such an extent as to require the output of those 100 factories, that there had not been set in motion an upward movement of prices which might not be arrested without State intervention with all its consequent evils. The past few years had been years in which supply had outstripped demand, and as a consequence the risk of extortionate profits being made at the expense of the consumer had been negligible. But he submitted that the risk would be a serious menace if economic conditions once more regained an equilibrium and demand became equal to, if not in excess of the supply. He was not persuaded in spite of seductive speeches to the contrary that capitalist combinations, given the opportunity, were likely to refuse large profits when circumstances were sufficiently propitious. That, he submitted, was a vital aspect and one which must not be overlooked. It could not be seriously suggested that the qualities of courage, initiative and concentration were to be found to anything like the extent necessary at a time like the present, in the combined personnel of a company with a capital of, say, 50 million pounds. He came from a city in which had been built up during the past 100 years a great shipping industry, and it had been built up by individuals whose names were known in all parts of the world. He desired to draw no false conclusions, but it was nevertheless significant that in spite of the amalgamations which had taken place in that industry, at least one firm had remained, to his knowledge, unabsorbed, had not even adopted limited liability, and was conducting a successful business to-day. In conclusion, he emphasised the fact that the information available was not sufficient to enable an intelligent forecast of the advantages of capitalist combinations to be undertaken, but as yet he had read nothing nor heard anything which convinced him that individualism with its enterprise, its courage and its tenacity of purpose, could not or would not, if given reasonable freedom from State interference and reasonable banking facilities on sane and practical lines, provide a solution to the problems which beset them to-day. (Applause.)

Mr. ALEXANDER HANNAH, F.S.A.A., said his contribution to the discussion was more from a desire to pay tribute to his fellow townsman, Mr. C. Hewetson Nelson, than any conviction that he could contribute anything really useful to the discussion. He offered him his felicitations upon the successful way in which he had dealt with a subject so very important to accountants. He thought it was agreed that rationalisation of industry and capitalist combinations were not yet a proved success, but perhaps the period of experience was not yet sufficient to enable a definite opinion to be formed. There were, however, one or two features which to his mind would have to receive the serious consideration of those engaged in the study of that subject. In all types of large scale capitalist combinations in industry there were two points which appealed to him particularly. His first point was that he thought it was becoming increasingly apparent that in the case of the large public company the present method of appointment to the board of directors was not effective. As they knew, in most cases, new members were co-opted by the existing board (subject to formal ratification by the shareholders), and it was most unusual to drop a useless director. The question of management of large scale industry (particularly socialised industry) would soon, he thought, disclose difficulties in staff promotion methods. Most of their present leaders had been discovered by the competition method, often commencing in small businesses, but twenty years hence the then captains of industry would have emerged from the ranks of the staffs of the large companies, their progress mainly dependent perhaps upon the recommendation of their immediate supervisors at each stage. If a key position on the scale was occupied by a man jealous of his own position or otherwise incapable, they knew what happened. The remedies were, he thought, an enlightened recruiting policy and more especially adequate facilities for transfer from one department or branch of the business to another. This privilege was, for example, the saving grace of the banks and municipal

services. His second point was supply of capital. For various reasons it seemed to be becoming more difficult to obtain capital for small concerns say up to the £50,000 mark. A public issue was expensive, the banks would not lend permanent capital, and the moderate investor, deterred by income tax and death duties, was less adventurous than hitherto, probably feeling safer with public authorities or large companies. The solution might be that it would be found possible to establish a series of provincial investment companies, which would borrow on a large scale by public issue and lend to approved smaller companies on debenture. Such a scheme might do more to revive industry than the famed remedy of a low bank rate. (Cheers.)

Mr. A. STUART ALLEN, F.S.A.A., said he thought they must accept the fact that combines were with them and would remain with them and tend to add to their number from time to time. That being so it seemed to him that the main question for consideration was that of seeking a method by which that tendency could be controlled and directed into channels which would be of the greatest advantage to the community. That question must clearly be dealt with fundamentally in the truest sense of the word, and it was therefore interesting to consider what might best be called the inspirations to combination. For present purposes he proposed to divide inspiration into two broad classes: Individualistic inspiration, and Governmental or semi-official inspiration. The individualistic range—that of the dominant personality, already referred to—would, he thought, be the better of the two. On the matter of control the question arose as to how they were to make progress and get away from the haphazard methods of the past? He had in mind a Committee under the aegis of the Board of Trade, with a constitution somewhat similar to that of the Board of Referees; that Committee to hold sessions from time to time as might seem expedient with power to demand information, to call witnesses, and to collate, codify and publish that material, and advise the Board thereon; the findings of the Committee to be published subject to the approval of the President of the Board of Trade. In that way there would gradually be built up a body of authoritative opinion which would be a guide to those seeking combination or amalgamation in the best interests of industry, and a deterrent to others actuated by baser motives. (Applause.)

Mr. GRIERSON MACARA, F.C.R.A., dealing with some of the points mentioned in Mr. Hewetson Nelson's paper, said that the small shopkeeper formerly did not put anything down in his books to reserves, depreciation, and so on. The Companies Act with all its consequences changed that, and that gave the accountant an opportunity of making himself felt in the trading of the community, and he hoped the activities of accountancy would increase in that direction. Some of the amalgamations that they had to-day were, of course, too big—like the railways. He understood that if a trader in the North of Scotland, for instance, made inquiries about anything special, that inquiry was sent to headquarters in London, and before it was answered a couple of weeks had elapsed, and in the meantime the trader concerned had fixed up with some rival, probably a road rival. (Cheers.)

Mr. J. STIRLING BROWN, F.S.A.A., said the boast of the accountancy profession was efficient service. They were endeavouring to discuss the question of amalgamations and combines, and they must approach the question with great caution, but he was sure caution was the second nature of every accountant. Amalgamations failed because they found it impossible to apply the human touch, and consequently the spirit and co-operation and personal interest was absent, and no concern could reach success without that spirit. He granted them that certain combines and amalgamations had endeavoured to overcome that defect by introducing Welfare Schemes which in most cases were parochial in essence and pauperising in effect because the employees entered into the schemes thinking that if they did not do so they would lose their jobs. He suggested that they should aim at regaining that spirit of confidence and interest between the employer and the employed. (Applause.)

Lord PLENDER, G.B.E., F.C.A., said he would like to pay his personal tribute to the excellence of Mr. Hewetson Nelson's paper, and as the time allowed was so short they would forgive him if his remarks were brief. The movement in the industrial world towards so-called combinations, which was not new, had, in some cases known to him, proved eminently satisfactory not only to shareholders but to customers; but there were those which had failed in not fulfilling the expectations of their originators. Failure had generally been due to over-capitalisation, shortage of working capital, the merging of units not suitable or necessary for the project as a whole, defects of management, and want of efficient control, and in certain cases through change in public taste, loss of markets abroad and severe competition by imports. Individual businesses, however, were not exempt from many of those risks, and not a few of them had sunk and disappeared as units. He had known of cases which had proved to be greatly to the advantage of the firms or companies taken over. General conclusions on that subject, as on others, had their dangers, and the old rule usually applied that each case required to be considered on its merits and judged by results. That was the only sure test. He dreaded, as one speaker suggested, further interference of Government with trade and commerce. There was enough of that already. In paragraph 63 of Mr. Nelson's paper was an extract from the *Incorporated Accountants' Journal* of November, 1929, which read as follows: "When one large company absorbs a number of separate entities, what were probably a dozen audits by different firms of accountants become one audit by a single firm." He ventured to say that that assertion was not wholly justified. In his own experience, he had always done his best to persuade directors of large combinations to continue to employ the old auditors of individual units, and often with success, though not always. (Applause.)

Mr. Hewetson Nelson's Reply.

Mr. HEWETSON NELSON said that as the Conference had another engagement he could not reply in full to the discussion. He would like, however, to acknowledge the references made to his paper, and to assure all readers of it that he had appreciated from the first the difficulty and delicacy of the subject with which he was dealing. He also appreciated the august nature of an International Congress of Accountants, which did not in his judgment provide a platform from which to expound private sentiments. He had been involved in one of the big mergers, and he still felt that on the whole, taking things on balance, and bearing in mind the peculiar time through which they had been passing, the particular phases of the merger had in many cases at any rate served a very useful end. He concluded by acknowledging his personal indebtedness to the speakers and his particular appreciation of the fact that the Lord President of the Conference had taken part in the discussion.

On the same day, a Paper was read on ACCOUNTING AS AN AID TO COMMERCE

BY
Professor W. ANNAN, C.A.
(Professor of Accounting and Business Methods, Edinburgh University).

Mr. C. J. SHIELDS (President of the Society of Accountants in Edinburgh) occupied the chair.

Professor ANNAN said:—

The subject on which I have the honour to address you is "Accounting as an Aid to Commerce." To an audience of accountants it may seem futile to discuss such a subject. It may be said that accountants do not require to be reminded of the many ways in which they serve commerce in the course of their practice, and that the manner in which they have been complimented in the past is sufficient proof that their

services are effective. It is not putting it too high to say that we accountants have been hailed as a heaven-sent profession, without which commercial undertakings and other institutions, not excluding the State itself, would have been very badly off. Indeed we have been told this so often that we should be excused if we accepted it without reserve and made no attempt to ascertain for ourselves if, as a popular belief, it is justified or not. We need not quarrel with those who thus eulogise us, but, lest we should be falling into the unpardonable crime of self-complacency, it is well that we should take ourselves to task at times and consider whether, in spite of the many useful functions we do perform, there are any ways in which we may be falling short. We should in fact consider carefully if our service to Commerce might be improved, and if so by what means that improvement can best be effected?

Speaking broadly, we serve commerce—and by commerce I mean industrial activity of all kinds—in three ways:

- (1) Through those of our members who adopt a commercial career,
- (2) Through professional services as auditors; and
- (3) As advisers.

1. COMMERCE AS A CAREER.

Training.

A youth who serves a term of articles or apprenticeship with a practising member of the profession and passes the prescribed examinations has an exceptional opportunity of qualifying for the higher commercial posts. The experience gained in assisting in the practical work of the profession and the knowledge acquired in preparing for the professional examinations make a combination which those responsible for selecting recruits for the accounting work of commerce have not been slow to recognise.

A professional accountant's office is evidently regarded as a singularly suitable place in which to receive a general training in business methods as well as in accountancy. There is some truth in the conception. The articled clerk or apprentice has a good opportunity of acquiring business habits. He lives in the right atmosphere. He learns about many kinds of businesses, and not the least of his lessons is the criticism he hears of the chief actors in the concerns whose accounts are being audited or investigated from time to time. He is thus led to appreciate the pitfalls that beset the man of business on every hand; he can note the methods by which these troubles are avoided or overcome by the successful, and the lack of method which proves disastrous to others. His lessons are extended and enhanced in value if his experience includes the winding-up of bankrupt estates or the liquidation of limited liability companies.

If he is fortunate enough to see and have explained to him the whole accounting and statistical organisation of one or two efficient modern businesses, he will observe what an important part the periodical statements submitted to the management play in controlling and guiding the destinies of the concern. If his duties have been limited to checking the accuracy

of yearly balance-sheets and profit and loss accounts, his knowledge of periodical statistics will be confined to what he has learned for his examinations. Comprehensive as these examinations are in this country, and they are frequently being adjusted to bring them into line with the needs of the day, they do not yet sufficiently stress the importance of "business statistics." It may be that the subject of "business statistics" as a whole does not readily lend itself to written examination papers, and that an oral examination on certain parts is necessary, but no such difficulty arises in regard to cost accounting which in its wider interpretation is the most important phase of statistics.

In this connection it will be interesting to note the effect of the recent adjustments on the examinations of the English Institute and the Scots Societies of Accountants whereby more prominence is given to questions on cost accounting. It is a commendable movement which in time should have far-reaching effects. It must be remembered that tuition in a subject is largely guided by the questions set in that subject at the examinations, and if the questions are limited, so will the tuition be. Moreover, an articled clerk or apprentice will take a greater interest and search for examples in practice, in a subject which is given a prominent place in the examinations.

Theory and Practice.

Meantime those who are likely to go into commerce, should, while improving their theoretical knowledge of "business statistics," take what opportunity they can of observing how the theories they learn are being applied in practice. How far such opportunity will be open to them will depend upon how far their masters are consulted by clients regarding the statistical part of their businesses, and that again will largely depend upon the attitude adopted by the masters towards their professional work to which I shall refer later.

I emphasise this matter because it is now generally recognised that the executive of a large commercial or industrial concern must be provided with appropriate and reliable statistics. They are the chart and compass by which the course is marked and the ship steered, unlike the annual profit and loss account which only tells the story of the year's adventures, and the balance sheet which shows the condition of the ship at the end of each voyage.

The trained accountant who goes into business should be able to provide what data is necessary. As the right hand of the manager he should be prepared to submit to him the kind of statistics that will meet the peculiar needs of the business:

Figures that will show the detailed expenses of the business.

Figures that will show the trend of the business.

The results of particular parts of the enterprise.

Proof that value is being obtained for what is being spent.

The effects of advertising campaigns.

The efficiency of travellers and agents.

Comparison with previous periods of the percentage rise or fall in such vital matters as gross profit, factory overheads, selling and delivery expenses, turnover, &c.

and particularly, in these days :

Frequent surveys of the factory order sheet, and

The effect on profits or losses of a restriction of output or an increase in production to meet lower selling prices.

An accountant who is actively engaged in commerce should, moreover, in conjunction with the management determine and record the reasonable standards of performance in every process or operation in the undertaking and provide for the consistent comparison of the actual with the standard performance. He should be ready to recommend and institute methodical investigation of any phase of the business which shows a decline in efficiency or failure to keep pace with any general trend towards improvement.

It is impossible to particularise all the kinds of statements that will be found serviceable; anyone with accounting knowledge, average ability, plenty of commonsense and some imagination will, after acquiring an elementary knowledge of the trade concerned, readily discover what is best suited to the occasion. A flair for statistics is not necessary. Indeed a misguided devotion to statistics may be dangerous and may result in masses of unrelated and meaningless data which lead to nowhere.

The great advantage of the accounting control being in the hands of one skilled in statistics, as well as in book-keeping and the preparation of accounts, is that he can arrange his system so as to provide the material for both the statistical statements and the financial accounts without overlapping, waste of time or unnecessary expense. The thorough grounding which he receives in the fundamentals of book-keeping, and their application in the different forms that come under his observation, will have taught him how to evolve a system to meet the needs of any particular case. Slavishly to follow an imperfect existing system, rather than think out and introduce a better, is a sign of mental laziness or incapacity, and action following upon independent thinking is a habit that every young accountant should seek to develop to the best of his ability.

It has been said that a group of figures may be seen with the eye but they are meaningless unless they pass through the brain. That is true, and should be kept in mind by the accountant who is called upon to devise and interpret statistical information for the executive of a business. By reporting concisely and intelligently on the favourable and the unfavourable conditions disclosed by the figures, he will save the manager's time and allow him to devote his energies to the practical affairs of the business.

Modern Recording Methods and Appliances.

Knowledge of the application of statistics to commerce is incomplete without an acquaintance with modern recording methods. During the last quarter of a century a great change has come over office

methods; the pen has given place to the machine. The introduction of cards and loose-leaves in place of the bound volume gave the engineer his opportunity and he has replied with effect. In recent years he has put on the market machinery which borders on the miraculous. The magical powers of electricity have been harnessed to the typewriter and calculator, and the whole operations of recording sales or purchases, posting, adding and balancing, can be accomplished by simply tapping the keys of a specialised type-writing machine. More wonderful still, by the use of punched cards and electric machinery now specially adapted to meet the needs of commerce, statistics can be compiled in the space of minutes which, by the old methods, would take hours and perhaps days to complete.

The demand for more and yet more statistics, including complicated returns for State departments, has changed the whole style of the business office. Even the personnel has altered. The social effect, the removal of mental effort and the substitution of monotony through extreme division of labour are outside the scope of this paper. The effect on commerce, with which we are concerned, is that office work can be executed more rapidly, up-to-date statistics and accounts can be produced in greater variety and, provided there is sufficient volume of work, at a great saving in cost.

For the accountant who adopts commerce as a career, an intimate knowledge of those developments is essential, otherwise he is severely handicapped. By observing them he will see new possibilities in the production of statistics and the speeding up of the costing records, which, as I have already mentioned, are of vital importance. The accountant who goes into business and keeps himself informed of the improvements that are occurring in the character of cost accounts in answer to the demands of the business world, will be enlarging his capacity to fill a post which is assuming increasing importance in modern business.

In the manufacture of its products each industry has its own recognised technique which has usually evolved slowly from experience, modified in recent times by the findings of the scientist. It would obviously be placing an impossible burden on the accountant to demand that he be familiar with the technical details of each industry with which he is concerned. Indeed his education and training may not have fitted him for the acquisition of such knowledge.

Nevertheless the accountant in practice, and to a greater extent the accountant who has associated himself with a particular industry, should acquire a knowledge of modern methods of manufacture. He should possess a degree of familiarity with the processes of manufacture sufficient to enable him to co-operate with the works and factory management in devising and developing statistical information. In a large undertaking the accountant becomes the liaison officer between the works or factory management and the directors who control the policy of the business.

2. SERVICE AS AUDITORS.

Historical.

It is interesting to note that in the petition for a Charter by the Society of Accountants in Edinburgh in 1854 there is no reference to auditing as being part of an accountant's duties; it was so mentioned, however, in the similar petition by the English Institute in 1880.

Joint stock companies were not unknown in 1854, but professional auditors, in the modern sense, did not then exist. The Companies Act of 1862 did not make an audit compulsory, although Table A appended to that Act, as specimen Articles of Association, contained audit regulations which any joint-stock company might elect to adopt. In 1879, after the failure of the City of Glasgow Bank, the audit of banking companies, and in 1900 the audit of all limited liability companies, was made compulsory.

We have thus had at least thirty years' experience of the auditing of joint stock companies in this country, and the volume of work falling on professional auditors may be judged by the fact that in Great Britain alone there are over 114,000 companies on the official register, with a capital exceeding five and a half thousand million pounds sterling (£5,500,000,000). The number of individuals and private firms with accounts for audit is not available, but it must be exceedingly great.

Value of Audit.

After thirty years' experience it is not unreasonable to take stock and endeavour to assess the value of the audit as it is now being carried out. To the credit of the profession it may be said that the number of cases of alleged dereliction of duty on the part of the auditor, brought before the Courts, is exceedingly small and the number of convictions infinitesimal. That fact reflects favourably on the wisdom and foresight of the founders of the societies and their successors in office in setting and maintaining a high standard of examination and a strict code of professional conduct.

Nevertheless, we should not refrain from asking ourselves if, under modern conditions, we as auditors are giving as efficient service to the commercial community as we ought, if we are not being content to give only what is required of us by statute or case law, if we are not inclined to think more about the limitation of our liabilities than the furtherance of our clients' interests, and if we are not too timid in expressing our opinions and beliefs or in offering assistance in matters which do not appear to be strictly within the scope of an audit.

In considering whether our service is efficient or not, no one will deny that the preparation of the young accountant for his work by concurrent study and practice is thorough and effective, or that there is ample opportunity in the accounting press and otherwise for the older members to keep themselves up-to-date in all that relates to the profession. It may be questioned, however, whether the practising accountant makes full use of the principles and precepts he has learned for examination purposes or in post-examination study.

Cost Accounts and Inventories.

For example, admitting the importance of cost accounts and their reconciliation with the financial accounts, does the auditor suggest their introduction where they are non-existent, and does he make use of them for the purpose of the audit where they are available? Does he check the quantities in the stock sheets with the stores books? Does he check the work-in-progress with the cost records? Does he consider whether the value of work-in-progress or finished goods contains a legitimate proportion of oncost, or inquire into the system of allocation of overhead expenses? Or does he conclude that costing is entirely outside the auditor's province and accept without inquiry the managing director's certificate of the value of stock and work-in-progress?

A case that came before the English Courts* recently prompts me to remark that in future an auditor who does not regard cost accounts as an integral and necessary part of a manufacturer's system of book-keeping and make use of them for the purpose of the audit will receive little sympathy from the Court should trouble arise regarding the inventories of stock and work-in-progress from which the figures for these items in the balance sheet are obtained. I suggest that not only quantities, but prices also, should be checked by reference to the costing records, prices of completely manufactured goods as well as goods in process of manufacture.

For the purpose of valuation of stock in trade we have become accustomed to the phrase "Cost Price or Market Value," but what is the cost price of a manufacturer's own productions? What elements are to be included? It is clear that wages and material must, but if the cost of material has fallen since the goods were manufactured, is the lower figure to be taken? If so, then the valuation is not based upon "cost price" but upon what might be termed "replacement cost."

Then what portion of overhead expense is to be included? Obviously not the portion referable to selling and delivering goods, as that particular expense is not incurred, so far as the stock in hand is concerned, until such stock is sold and delivered. Nor should any part of the factory oncost representing interest on owner's capital invested in buildings, plant, &c., be included, as to do so would be to take credit for profit before it is actually earned.

Incidentally, I might remark that herein probably lies the solution of the controversy in accounting circles as to the propriety of including interest on owner's capital in the cost price of manufactured goods. I submit that in arriving at the cost price of goods in stock for balance sheet purposes, such interest should not be included, but in computing the cost price of a manufactured article for the purpose of determining the price at which such article may be sold, it is proper that interest on owner's capital should be taken into account. In other words, there

* *Westminster Road Construction and Engineering Company, Limited (in Liquidation).*—*The Accountant*, February 13th, 1932.

is a cost price for valuation purposes, and a cost price for marketing purposes.

This leaves an apparent inconsistency in the treatment of interest on owner's capital and interest on borrowed money to be faced. Why should the one be included in valuation costs and not the other? Why should the costs of a company with no borrowed money be less than those of a company which has borrowed money?

If borrowed money could properly be termed capital, there would be no answer to these questions—the inconsistency would be real. But borrowed money differs from capital in that it is a debt payable, and interest on it is due irrespective of whether profits are earned or not. If capital is to retain its original and usual accounting meaning as the margin of assets over liabilities, debenture capital and loan capital are really contradictions in terms.

As valuation cost should include all expenditure incurred in production, there is no excuse in theory for excluding interest on borrowed money. If manufacturers exclude such interest in valuing their stock in trade and work-in-progress, they are doing so not on account of any theory but either for the sound reason that otherwise the valuation would be too high considering all the circumstances of the time or that they had decided to create an inner reserve in this way. In determining costs for selling purposes of course the point does not arise.

The cost of a product is not absolute. However carefully a cost has been ascertained, it requires interpretation in the light of the use that is to be made of the information. For example, a manufacturer who has reckoned interest in his costs may desire, for purposes of guidance in fixing selling prices, to exclude such interest. He may also require to know the amount of his direct costs, the expenses that fluctuate but not proportionally to production and the fixed expenses.

A further difficulty in the valuation of stock and work-in-progress arises when the production of a factory varies to any great extent from period to period. To illustrate the point in its simplest form, if oncost is applied as a percentage on the total productive wages, based on the relative proportion of oncost and wages of a prior period, is the percentage to be increased if the current wage bill is less, or reduced if it is more than that on which the percentage is based?

There are other practical difficulties regarding the proper treatment of such extraordinary items as maintenance of idle machinery and plant, obsolescence, outlay during strikes, loss on exchange, &c. Are they to be included in cost or not? If they are included the accuracy of the costs will be hopelessly vitiated.

The matter of valuing stock in trade and work-in-progress has assumed a national aspect in this country, in respect that the Government have an interest through taxation in the trading results of every business concern. As taxation has increased, so the interest of the Government has become greater. At

the present time, the British Government is a partner in every business concern, a partner who takes one-fourth of the profits but bears no share of the losses and contributes no part of the capital.

Obviously the taxing department of the Government, known shortly as the Inland Revenue, will not be satisfied by a method of valuation that results in an under-statement of profits, even although as accountants well know, the under-valuation of stock, &c., at the end of a period merely has the effect of passing on the benefit which accrues on realisation to a succeeding period. From a taxing point of view, however, that is unsatisfactory, because it delays recovery of the tax and causes inequalities if the rate of tax changes.

Thus one of the questions put by the Inland Revenue concerns the basis of valuation of stock and work-in-progress. Hitherto the answer to that question, that the valuation has been made on the basis of "cost price or market value, whichever is lower," seems to have satisfied the Inland Revenue in regard to all classes of stock. There is no doubt about its suitability to raw material and bought-in stock, but the phrase does not seem to have a clear and definite meaning so far as a manufacturer's own productions are concerned.

Each individual manufacturer must answer the question in his own way. He will be wise if he values all his goods on the most conservative basis possible, and alters the terms of the certificate or gives such explanations to the Inland Revenue as may be found necessary. It cannot be too strongly urged that the annual accounts should be framed without considering what the attitude of the Inland Revenue may be regarding any of the items therein. Regard should be had only to strict and prudent business principles; the income tax position can be elucidated by question and answer. As to the auditor's position, where the records provide information from which the inventory and valuation can be verified, is it not part of his duty to verify the details in that document in order to satisfy himself that there has not been an over-statement of quantity or an over-valuation in price, and in doing so to have regard to such questions as I have enumerated above? Where the records do not exist, he must, of course, adopt the best means available as a check on the stock and work-in-progress sheets, as certified by the chief executive.

Periodical Statistics.

The absence of the necessary records might advisedly be commented upon by the auditor and a recommendation made for their introduction.

As to the question of how far an auditor can help his client in the preparation of periodical statistics, to which I have already referred, much will depend on circumstances. If there is a competent accountant, versed in this kind of work, on the client's staff, and that is common now in large concerns, the auditor may safely assume that he is not concerned with the statistical department unless by request. In the majority of businesses, however, chiefly for reasons of economy, there is no such expert on the staff and the auditor is probably the only person with sufficient

knowledge to prescribe the form of statistics that would be of value to those in control. Unfortunately, however, many of those in control of businesses do not appreciate the value of statistics, and the auditor has a natural reluctance to suggest their introduction lest he should be considered to be interfering and seeking to make work for himself at the expense of his client. Personally, I think he should risk a rebuff, and in general I am sure if he prepares the way judiciously he will not suffer one.

In such circumstances, the first great adventure upon which we auditors should try to get our clients to embark is to institute the preparation of a series of *pro forma* balance sheets and profit and loss accounts at intervals throughout the year. The framing of these statements, after the first year, is not so formidable as may be imagined, and their value as guides to the conduct of business cannot be disputed. In these days of scientific office appliances and specially trained operators, there is little reason why anyone with a business of any size should have to await the production of his annual balance sheet and profit and loss account to tell him how he stands, and whether his operations have resulted in a profit or a loss. The backbone of such statements, the first step in the great adventure I have mentioned, is the monthly trial balance, in a pre-arranged classified form, and auditors, I submit, should urge the taking of that step wherever and whenever possible. Once it is taken, the way is open for developing a monthly statistical report of real value. Besides, it is in the interest of the auditor as well as the client to have the books regularly and frequently brought to a balance.

Cash Records.

It may seem a minor point, but, as auditors' responsibilities are being made heavier, it is perhaps worth while emphasising the necessity also of enforcing the rule that all cash received should be paid into bank, and all payments except petty cash, which should be on the imprest system, be made by cheque. Adoption of this rule would be less uncommon if the forms of cash book prescribed by accountants and text-book writers were more suitably designed. As a graph loses its effect by overloading, so the popular form of columnar cash book has become a source of danger by overcrowding—a danger to both the auditor and his client in that cash defalcations are not easy to discover. What is the sense, for example, of cumbering the cash book with cheques drawn on the bank in favour of third parties? Theoretically it is wrong, and practically it leads to the danger I have mentioned.

If, while making sure that the accounts are true and correct as shown by the books, the auditor uses his critical faculty to suggest improved and, it may be, simpler methods of preparing these accounts and at the same time producing records for the guidance of the management, he will be increasing the effectiveness of accounting as an aid to commerce.

Income Tax.

I mention only in passing the vast amount of work placed on accountants in looking after the interests of commerce in regard to income tax, the necessity of

mastering the intricacies of the taxing statutes, following the numerous tax cases which come before the Courts in ever-increasing numbers, and spending much time in corresponding with or interviewing inspectors of taxes in the adjustment of assessments.

In Great Britain and Northern Ireland the amount of income arising from industry and commerce assessed to income tax is round about one thousand million pounds (£1,000,000,000), and it is safe to say that the bulk of this amount falls under review by accountants year by year, and that accountants act for a large proportion of the two million persons who are subject to tax. This class of work has naturally fallen into the hands of accountants, as it deals with figures with which they are already familiar. It has become so much a part of their duty that auditors, in the course of their audits, spend a considerable amount of time in extracting the information which the inspector of taxes requires, thus saving their clients the worry of answering the many and troublesome questions that arise before the assessment is finally fixed. I think it is generally recognised that this class of work is a distinct aid to commerce, and that it will not diminish in importance in our generation or the next.

Depreciation.

Many articles on depreciation have been written for the benefit of accountants, but it is an open question whether the principles enunciated on that most important subject ever reach the client, and if so whether they are fully appreciated.

Whatever the legal view may be it is an axiom in accounting that no real profits can be said to have been earned unless provision has been made for depreciation of the fixed assets used in making and transporting the goods produced. Difference of opinion may exist among accountants as to the most appropriate *method* of providing for depreciation, whether it should be by equal or diminishing instalments, annuity or sinking fund provisions, insurance policy or revaluation at short intervals; there is general agreement, however, that the *scale* of depreciation is not a matter to be determined by the accountant but that it should be fixed for him by those who have the practical qualifications to do so. The auditor is qualified to give an opinion about *method*, but his knowledge regarding *scale* or amount of depreciation which mainly depends upon the expectation of life of the asset is only such as he may acquire through observing the practice of other concerns.

In dealing with machinery and plant, for example, it is the practical man who determines the expectation of life of the various units or groups of units. To do this effectively, each unit or group must be considered separately, and obsolescence as well as wear and tear must be taken into account. In these days of rapid changes, obsolescence is probably the more important of the two. A machine may become obsolete long before it is worn out. Experience will tell which of the two factors should be selected as the length of life in each case; the shorter the life the higher will be the rate of depreciation.

Having collected all relevant information, it is advisable that it should be set down in the form of a machinery and plant register which should be kept up-to-date by additions and cancellations. One of the columns in the register should show the expected life of the unit or group and the basis on which the value is to be written off during its lifetime. Another column will show the amount to be written off yearly and an abstract of the figures in this column for the whole battery of machines and plant will provide the figure which will appear in the profit and loss account as depreciation of machinery and plant. Such a register is a useful addition to the ledger account for machinery and plant; it records in detail the lump figures in the ledger.

In many businesses no register of this kind is kept. Too often the only record of machinery and plant is the ledger account showing the purchases on one side and the amount written off yearly on the other. The purchases which may be for machinery of various classes, subject to varying degrees of depreciation, are brought together *en masse* and the depreciation is an overhead rate fixed more or less arbitrarily and not necessarily bearing a true relation to the actual wastage that is occurring. The frequent selection of a rate of 5 per cent. on the diminishing value of the aggregate amount seems to suggest a slavish adherence to a rule of thumb precedent or an unaccountable desire not to exceed the rate commonly allowed by the taxing authority.

In such a case what should the auditor do? Should he pass the prescribed rate without question, or should he suggest that its adequacy be tested by the preparation of a register, as I have mentioned, or by some other means of inquiry? In asking these questions I am not concerned at present with the auditor's duty to the investor; that ground has already been well covered by Lord Plender and others at the last Congress. Looking at the matter solely from the "Aid to Commerce" point of view, it seems to me that we accountants who believe in the necessity for an adequate provision for depreciation, before ascertaining profits, should make a point of drawing the attention of our clients to the importance of the matter and show them in what way the sufficiency of the charge can be verified.

By so doing, we shall be helping them to avoid the danger of dividing profits that should have been retained to meet replacements, and we may be the means of preventing violent fluctuations in the overheads for costing purposes.

3. SERVICE AS ADVISERS.

Specialisation.

Medical men become experts in diagnostics through experience—the wider the experience, the quicker and more exact the diagnosis. Similarly, the accountant, by close examination and dissection of the accounts of business concerns which an audit entails, has opportunities of becoming expert in diagnosing business troubles. The degree of proficiency in this respect has hitherto been measured by the width of experience and the depth of the critical faculty

possessed by the individual. Now specialisation is becoming a feature in advisory work.

Accountants who are accustomed to conduct intensive investigations of businesses must inevitably reflect upon the causes that normally lead to decline or failure.

A business may be overwhelmed by sudden and unavoidable disaster, but I believe that to be exceptional. The causes of the decline or failure of established businesses are usually the insidious development of unsatisfactory features which may have been long unsuspected. In all too many instances the damages are serious, if not irreparable, before the causes have been detected. The reorganisation of a business usually demands time, money and not infrequently the introduction of a new element in the management. The accountant should be quick to detect the unsatisfactory features and should fully and frankly state his recommendations for their rectification.

Research.

In this connection, may I suggest for the consideration of this assembly the propriety of initiating courses of Research in Accounting and the cognate subject of Economics for the benefit of Commerce and Industry. It is certain there cannot be real progress and development in a science without research of some kind, and as accounting has now reached the stage when it may fairly claim to be ranked among the sciences, it may not be amiss to consider whether the time is not now ripe for the introduction of a scheme or schemes of research with the object of raising the profession to a higher degree of usefulness.

The science of accounting is now wide and deep enough to command the undivided attention of men with trained minds, minds devoted to the study of particular branches of the subject in the same way as in chemistry and medicine. In this country, the little research in which accounting forms an integral part curiously enough has been undertaken not by accountants who have had practical experience, but by bodies attached to the Universities. I refer to the work of the Agricultural Economics Research Institute of the University of Oxford and the College of Agriculture in Edinburgh. During the last five years these bodies, with the co-operation of a number of farmers, have produced statistics of great practical value to agriculture. A scheme involving research in a limited degree has also recently been introduced by the London School of Economics.

In America work of this nature has been carried out for some considerable time. The University of Pennsylvania has a department of industrial research which, amongst other activities, has been making investigations into particular industries. In the department of business history at Harvard the work of research takes the form of tracing the development of individual businesses, and there is also a department for collating returns from various kinds of enterprises and reporting results to traders who supply the information.

As an instance of the practical value of this kind of work, I might mention that the income tax officials

have accepted the average lifetime of machinery in the hosiery industry arrived at by the Pennsylvania University research workers as the basis on which depreciation allowance should be granted for taxing purposes, and the employers and employees of that industry have mutually agreed to submit their claims for adjustment of wages to the arbitrament of the University department to which reference has already been made.

You will agree that that is work of a very practical kind, and it is of interest to note that a young Scottish Chartered Accountant, who is also a graduate of the University of Edinburgh, is taking part in it. This graduate was successful in obtaining that rare prize, a Commonwealth Fellowship, and is the first accountant in this country, so far as is known, to leave the profession for a period of research.

As an aid to commerce, research of this kind should be encouraged. It has great possibilities, but it cannot be undertaken without adequate funds. I do not know where such funds are to come from, but as a precedent I may mention that over two hundred years ago George Watson, the first professional accountant in Scotland, in founding a hospital for the education and maintenance of the children of "decayed" merchants, stipulated, according to a memoir written in 1725, that "having been successful in the improvement of his fortune by the help of book-keeping he did particularly recommend that care should be taken that the children of the said hospital should be educated in these arts."

Business Economics and Finance.

Meantime accountants are performing work of a very practical nature in another sphere. The commercial world has gradually recognised the existence of a body of experts in professional accountants, and that is why they appear on the boards of directors of so many limited liability companies. In Great Britain I find no less than 700 names of accountants appearing on the directorate of over 2,500 joint stock companies.

The complicated nature of the finance of modern commercial and industrial undertakings, arising out of reconstructions, amalgamations, absorptions and the creation of subsidiary companies, is no doubt largely responsible for the election of accountants to the directorate of large concerns. Often the appointment is at the instance of banks or other large creditors, whose interests the accountant is commissioned to safeguard. In such cases he appears on the board in the role of a business doctor, and, provided he is not called in too late, he can apply his remedies with some hope of success. Like the medical man, he treats his "patient" as a "case," and so brings to bear an unimpassioned consideration and impartial judgment on the particular ailments disclosed. The employment of the accountant in work of this kind is eminently more satisfactory from all angles than engaging him in another capacity after the "patient" has expired.

The extreme difficulties of the present commercial situation are such that the most urgent call to-day is for "the man who can take the broad view, who can

form a just appreciation of the business situation and outlook as a whole, and who can co-ordinate and direct general policy from the standpoint of the far-seeing strategist."* Such a man must not be merely a learned theorist, but one who has had experience of the blending of theory with practice. That is the kind of experience an accountant obtains; he sees how the theories he has learned in his study of political economy, or economics, to give it its new name, work out in practice, and it shows the wisdom of our predecessors who included that subject in the syllabus of examinations for accountants.

So much importance is attached to economics by the Councils of the Scottish C.A. Societies that their regulations now require of every apprentice attendance at a class in one of the Universities or approved Schools of Economics, and a pass on a standard approved by the General Examining Board for Scotland. It was considered that such an arrangement would provide a more thorough grounding in the subject than the previous arrangement, which allowed each apprentice to select his own method of study and get through the political economy paper in the final examination as best he could. Thus equipped, the accountant of the future should be more capable than his predecessor of giving effective aid to commerce and industry in matters relating to business policy and development, especially when the ramifications are of an international character.

In routine work the advice of the advisory accountant is readily accepted, and it should proceed on the basis that it is more vital for the directors of a business to know immediately where it has made its profits and losses than to be told once a year how much it has made or lost. That is the keynote of the present day call for better book-keeping for business; that is why more books are being written on cost accounts than on any other branch of accountancy. The annual accounts may supply all that is necessary for those interested in the finance of the business. Financial policy may be determined on what they show, but finance alone will not turn losses in production into profits, and unless there are profits there will be no further need of finance. Finance occupied too prominent a place during the boom years, and many managers of businesses are to-day striving to pay dividends on capital that should never have been created, and the time of accountants is taken up with reconstructions of capital that should not have been necessary.

The finance of a business need not be difficult if the concern is prosperous. The first aim, therefore, of all businesses should be to make profits—that is the purpose for which they exist—and the accountant's main object should be to help in that process. In whatever capacity he serves, he should aim at assisting the management in the difficult task—extraordinarily difficult in these days—of planning, forecasting and testing by results, which can best be done for manufacturers by an up-to-date system of cost accounts,

* "The Accountant and Economics," by Norman W. Duthie, C.A.—*The Accountants' Magazine*, May, 1927.

and for other kinds of businesses by statistical statements at short intervals.

CONCLUSION.

While the present economic warfare lasts, when a business may be ruined by Government action, when margins of profits may disappear in a night through a change in the rate of exchange, and when the world is filled with goods for which there is no market, it may seem frivolous to talk to business men about improving their system of accounting. But from what I have observed, business men are appreciating the situation themselves, and, with the assistance of their accountants, are seeking to introduce new ideas in accounting and business method. Adversity is a good university, and blessed are they who pass through it in youth. It is a sad experience for middle age, and a catastrophe for the old. That is true for a business as well as for an individual. But bad times may turn out to be good times in the end, and in every land may we all, and I hope soon, be able to repeat what Kipling said of the Boer War:

"Let us admit it fairly,
As a business people should,
We have had no end of a lesson,
It will do us no end of good."

Following the reading of Professor Annan's Paper, a Paper was read on

MECHANICAL ACCOUNTING.

BY

Mr. ROBERT ASHWORTH, F.C.A., F.S.A.A.

Mr. ASHWORTH said:—

The subject upon which I have been invited to prepare a paper for this International Conference of Accountants has been described as "Mechanical Accounting." There must be no misunderstanding, however, about this title, for there can be nothing mechanical about the function of accountancy. Mechanical accounting, therefore, can have reference only to the building up of the accounting and statistical data, by means of which the real function of accountancy is exercised, with the elimination, as far as possible, of the old laborious manual and mental method and the use of pen and ink by the substitution of mechanised method and the use of machinery.

The world-wide importance of mechanical accounting and the attitude of the accountancy profession thereto can be measured by the fact that this is the second paper on the subject given to an international conference of accountants.

The professional accountant is interested in this subject from several angles, arising from his dual capacity of accountant and auditor.

As an accountant, he is interested from the management point of view, because he not only has to meet the demands of management for information, but also has to influence those demands in the right direction. When advising as an accountant, he is also interested because his advice may be useless unless he can obtain the necessary data accurately, speedily and in sufficient detail.

As an auditor, he is interested in the subject from the angle of seeing that proper and adequate precautions are taken against fraud, that the use of machinery does not interfere with his duty of giving a conscientious report to shareholders or his clients without any mental reservations, and generally that his statutory duties as auditor can be properly performed.

We shall examine, therefore, the question of mechanical accounting from all these points of view, but, in order that we shall do so with a proper perspective, it will be necessary for us first to see what has led to the growth of mechanisation in the office.

MECHANICAL AGE.

This has been described as a mechanical age, and certainly during the past thirty years there has been an enormous, and at one time unbelievable, scientific advancement. The tendency of invention during this period has been definitely to increase speed, decrease distance and greatly reduce physical effort. The scope of business operations has been exceedingly enlarged by the introduction of wireless, improved long distance telephone communication, improved methods of transport by land, sea and air, and the mechanisation of production.

Despite the intervening Great War the population of the world has increased enormously, thus increasing the wants of the people and the demands for employment. In Great Britain alone, during the past thirty years, the population has grown by nearly 9,000,000, while that in the United States of America has risen by nearly 47,000,000. World population is estimated to have increased by over 240,000,000 between 1907 and 1932, although there must be a large margin of error in this estimate, as many countries have no census, while others have only an inadequate census.

The result of these and other circumstances has been that competition, both national and international, has been intensified to such an extent that new and improved methods of manufacture have had to be found—firstly, to cope with the increasing demands, and, secondly, to reduce costs to meet the competition, so that the position to-day is that almost every country in the world is manufacturing under mechanised methods. Agricultural countries have turned their attention to factories and country people have flocked to the towns.

As an outcome of all this, mass-production principles have developed which have necessitated even greater use of machinery, almost to the exclusion of the old methods of manual production, and with mass-production has come more scientific factory planning, greater attention to factory layout and a keener study of factory welfare.

This growth of mechanisation in production has been accomplished in spite of the greatest opposition from the worker, both individually and collectively. There is no doubt, however, that nothing can deter the progress of mechanisation and the time will arrive when we will have to give as much attention to unemployed labour as we do to unemployed capital,

although the present chaotic condition of the world makes it difficult to determine the precise effect of mechanisation on the problem of unemployment.

We are not concerned here, however, with the economic aspect of mechanisation, except so far as is necessary to obtain a proper setting for the consideration of our subject of mechanical accounting.

ATTITUDE OF MANAGEMENT TO THE OFFICE.

An enormous amount of capital has been employed in mechanising production and great attention has been given by management to its every detail. The office, however, has not received the same consideration, for it has been looked upon by many, up to within recent years, as a necessary evil, being considered merely a non-profit earning department of the business, having no other function, outside simple book-keeping, but to provide figures when called for.

Office management has not been considered in the past as in any degree an important factor in the business, consequently progress in scientific office management has been slow and laboured. It has not kept pace with the progress made in the operative departments of the business and this lag has undoubtedly been a severe handicap on many concerns.

In a certain degree the desire for secrecy on the part of management has also played its part in preventing the adoption of modern methods in the office, for the fear of leakage of information to competitors has kept many accountants and their clerks tied to the old bound, and even locked, books of account, the use of pen and ink and the preparation of uninformative final accounts. Such clerks, however, were sometimes allowed to relieve the drudgery and mental strain of calculation by the use of much beloved ready reckoners, slide rules and other similar aids.

It is remarkable how many concerns exist which are still content to accept a much lower standard of efficiency in the office than they are prepared to countenance in other departments of the business, although there has been a great improvement in this direction in recent years. Many concerns now employ fully qualified accountants to take charge of this branch of their affairs, which, at least, has ensured more efficient and scientific keeping of accounts and has assisted greatly in the education of management to the real possibilities of the accounting function.

The importance of the accountancy profession itself was, of course, fully recognised by the State in this country during the Great War, when it was scheduled as being work of national importance.

The necessity for planning business operations and the increased demands of management, created by the rapid growth in the volume of business transactions, have brought an alteration in the attitude towards the office and accounting functions to such an extent that the large majority of successful businesses to-day are those which have made the office the heart of the concern, from which life is pulsated into all the arteries of the business, whether

they be in production, purchasing, selling or administration. There are, of course, cases where businesses are successful from a profit point of view in spite of bad management, but when such businesses are investigated they are generally found to be full of wastages and leakages, to which the management is blinded by the profits earned and lack of knowledge of the real accounting function.

The dimensions of business operations, the keenness of competition and the obstacles placed against the development of foreign markets at the present time have required management to give increasing attention to the following questions:—

- (1) The tracking of wastages and leakages in all the ramifications of the concern, including that of management itself.
- (2) The prompt elimination of unprofitable lines or departments.
- (3) The prevention of the lock-up of working capital unnecessarily and its remunerative employment.
- (4) Costs of production, selling and administration.
- (5) Price fixing and markets.
- (6) Saving of executives' time in purely administrative work, such as signing cheques.

In consequence, management has been driven to the office for aid in attacking these problems, with the result that improved statistical and accounting systems and methods, requiring more detailed and automatic analysis than formerly, have had to be evolved for dealing with store-keeping, stock-keeping, costing, wages, purchasing, sales, hire-purchase, factory accounting, cash accounting, main accounting and budgetary control, so that information will be quickly and readily available with the greatest possible accuracy.

The initial slow response to the calls of management soon revealed that, at least in large organisations, equal attention must be given to the administration, mechanisation, layout and welfare of the office as to any other branch of the business.

To-day, management has to be guided by the office to a very great extent as to the amount, quality and use of the information which shall be placed at its disposal, and it is here that great restraint must be exercised to prevent that information becoming so voluminous as to be both wasteful and useless.

For all practical purposes, however, it is futile to give management information as to wastages and leakages, unprofitable lines, excessive locking-up of working capital, inaccuracies in estimated costs, &c., months, or even weeks, after these events have arisen and the facts have become business history.

Management must have its information accurate, up-to-date, legible and in the most easily digested form, so that the time of executives will not be taken up searching for the facts, but in seeking and applying the remedies with the utmost despatch, which is one of the principal functions of management.

It seems obvious, therefore, that if these demands are to be met efficiently, and industry and commerce

are to receive the complete assistance of the accountancy function, the old pen-and-ink methods used in the office must be greatly reduced and in the main replaced by the use of up-to-date methods of accounting and the employment of machinery, in order that the more detailed analysis now required in present-day business may be forthcoming with the greatest accuracy and speed and at the least expense.

In dealing with this subject of mechanical accounting it must be made quite clear, however, that we are considering only one branch of office management. It is, of course, the main branch, as it has inseparably tied up with it the consideration of accountancy and statistical methods.

We shall see later in this paper, however, that office machinery must be the handmaiden of the accountancy system and not its master. We shall have to consider, therefore, the function of the accountant, accounting and statistical system, and the position of the auditor before we can deal with the office machinery itself in its proper place as the servant of the accounting function.

FUNCTION OF THE ACCOUNTANT AND GROWTH OF ANALYSIS IN ACCOUNTING.

The accountant, whether he be employed internally or professionally in that capacity, is one of the very few people who are in a position to see the business as a whole and to this extent his responsibility is all the greater, because he is in the privileged position in which a detached view of the concern is acquired, thus enabling him to use his powers of analysis to complete the picture of the entire activities of the business free from departmental bias.

Much has been said and written about the duty of the auditor, but the duty of the accountant has received very little attention, except on the rare occasions it has been necessary to discuss it in the Law Courts, purely from a legal angle, in the attempt to assess damages for negligence, or fix a sentence for some criminal act of "cooking" which he may have been induced to use in place of accounting.

At one time he was considered to be a good and dutiful accountant if he could prepare a neat-looking trading and profit and loss account and balance sheet, which took adequate care of the distinction between trading (which included manufacturing) and profit and loss expenses, and carefully assessed the difference between capital and revenue expenditure, thus arriving at a fairly accurate gross and net profit for the given period and the statement of the position of the business as at a certain date.

The process of analysis of accounts then developed and the accountant was required to make a further sub-division of his trading account by the inclusion of manufacturing accounts, and, as the scope of the business enlarged, to provide for branch and foreign accounts, and to prepare, now in departmentalised form, his manufacturing, trading and profit and loss accounts at more frequent intervals.

The principal function of the accountant then was to prepare these accounts, arithmetically correct and balanced, accounting for the transactions that had

taken place during a given period. His other duties were to render debtors' accounts and receive payments, and keep creditors' accounts and make payments; also to provide such statistical data he may be called upon to supply, which rarely amounted to more than the production of a periodical bank reconciliation statement and statements of sales and expenses sometimes in comparative form. In other words, the duties of the accountant some twenty-five or thirty years ago were those entrusted to the book-keeper and cashier to-day.

With the growth of business and the introduction of heavy taxation, including excess profits duty, the accountant had to make a still greater analysis of his accounts for the purpose of business and taxation investigations.

At the outset, this analysis was done by way of back analysis of the bound books of original entry; that is to say, at some period after the transactions had taken place he would go through the books of original entry and analyse each item under its respective head, which was an extremely laborious method and by the time the analysis was ready its value, at all events for vital business purposes, was considerably discounted by the lapse of time. From this grew the analytical books of original entry, such as the purchases and sales journals, returns inwards and outwards books, the analytical cash book, &c., and here was the commencement of automatic analysis, under which the transactions of the business are analysed as they occur, still, however, at this time accomplished in bound books with pen and ink.

This automatic analysis was an improvement on the old back analysis method, both from the points of view of efficiency and economy, but business continued to grow and the accountant found that to cope with the increased analytical work required he had to introduce loose-leaf and card ledgers, loose-leaf books of original entry and the slip system, thus bringing into greater use as an accounting medium the documents of original entry. The introduction of costing methods also acted as an incentive in this direction.

At this point the accountant called to his aid the typewriter, the adding machine and the use of fan-fold, interfold and continuous stationery. He also began to take a keener interest in the classification of accounts, the marshalling of assets and liabilities in the balance sheet and the presentation of statistical data.

So the work of analysis has continued to increase and the physical and mental effort involved in the work continued to decrease, until to-day in well-organised accounting systems automatic analysis is complete, being made possible only by the use of machines, amongst which are those combining the functions of the typewriter and adding machine, which had previously been used separately.

So much for the growth of analytical accountancy, but what is the duty of the accountant to-day? Mechanical accounting has relieved him of practically the whole of the drudgery and tedium of calculation and analytical work and has given him time to

discharge the added and more productive responsibilities of administration which the increased ramifications of business have thrust upon him.

To-day, the accountant must not be merely a collector and arranger of figures, he must be an interpreter of them and, in order that he may properly interpret, his accounts and statistical data must tell him the whole story of the business operations. Without adequate and automatic analysis this cannot be done and, in the absence of the aid of office machinery, there can be no adequate and automatic analysis, except at enormous expense, if the business is of any magnitude.

Management is not so much concerned with a statement of increases or decreases in turnover, expenses, costs, profits or losses, working capital and net assets, as it is in the reason for such a state of affairs. Management wants to know why there is an increase or a decrease and it desires information as to where and how the wastages and leakages arise. If, therefore, the accountant wishes to be looked upon as a productive power in the business, he will supply that information by utilising the time released to him and the improved facilities afforded him by mechanisation for the purpose of intelligent investigation.

If, however, the accountant is to take full advantage of the benefits of mechanical accounting, he must beware of the dangers involved in the use of office machinery. He, therefore, must have regard to the following:—

(1) *The proper relationship of mechanisation to the accountancy system.*

The accountancy system must be paramount and the fundamental rules of accounting procedure must be carefully preserved.

The machine should be applied to the system and not the reverse. This does not mean that there will not have to be some adjustments of accountancy method when machinery is installed; on the contrary, there will probably have to be a great deal of adjustment, but it does mean that the usual accountancy safeguards must be taken care of either by the machine itself or by the accounting system.

The accountant must not allow excellent salesmanship to induce him to put into operation a machine which will give results only by the employment of the accounting system sometimes offered with the machine, unless he has carefully examined the possibilities of that system, as well as the efficiency of the machine itself, and has satisfied himself that it meets all his requirements from an accountancy point of view.

On the other hand, while investigating, he must keep an open mind and not allow prejudice to blind him to the greater efficiency and economies resultant from mechanisation in the office.

(2) *Over-burdening the machines with unnecessary work.*

The accountant must not allow the ease with which analytical work can be accomplished by machinery to lead him into the great mistake of over-elaboration and the placing of work on the machines which is

not essential to meet business requirements. Otherwise he will find that he will soon be installing more machinery than is necessary, with the result that his accounting and statistical expense will rise enormously.

In addition, the information he supplies for executive use will tend to become so voluminous that, however valuable it may be in itself, it will be ignored and in consequence will become wasted by lack of use and therefore valueless for business purposes.

This danger of placing unremunerative work on the machines is one of the greatest pitfalls of mechanical accounting and one against which the accountant must take special precaution.

(3) *The elimination of work which has ceased to be of service.*

All forms and information produced by the machines must be under the continual examination of the accountant, to ensure that altered requirements of the business are catered for.

In this respect there is a tendency for executives to ask for information for a specific purpose and, when that purpose has been fulfilled, for the supply of the information to be continued indefinitely unless proper supervision and control has been exercised by the accountant.

The accountant is the mainspring of mechanisation in the office, although the accountants of many of the large concerns delegate their duties in this matter to a mechanisation officer. Nevertheless, if the mechanisation of the office is to be successfully achieved, the accountant must have:—

- (1) A high conception of his own duty as accountant, in order that the most efficient use of mechanical means may be effected.
- (2) A complete knowledge of the accountancy system, which he should reduce to paper in the form of a system's chart, showing the link between the various sections of his department.
- (3) A thorough knowledge of the organisation of the business, for which purpose he should compile an organisation chart for constant reference.
- (4) The ability to win the co-operation of his own staff.

Staff co-operation is one of the most important and, at the same time, most difficult questions in the mechanisation of accounting.

We are all aware of the strong opposition put up by the manual worker against the mechanisation of production, involving as it did in the early stages riot, civil commotion and the breaking up of machinery.

There is, however, nothing to be afraid of in this direction from the office staff, because, firstly, they have become used to the idea of mechanisation in production and, secondly, the standard of education is now on a considerably higher plane than was the case when machinery was first introduced into the factory.

The fear of loss of employment, however, naturally raises intense opposition against mechanisation in the

office. This opposition usually takes the form of an endeavour to upset the smooth running of the machinery, or the smooth working of the system.

It, therefore, is of importance that the accountant does his utmost to remove the suspicions of his staff during the process of mechanisation. The main lines of attack in this direction are as follows:—

- (a) That the process of mechanisation will take time before it can work effectively.
- (b) That the machinery is required to cope with additional work.
- (c) That staff will be released for more important and constructive work.
- (d) That displaced staff will be taken care of, either by pension or by giving sufficient notice of termination of service to allow them to obtain other employment and by providing every facility for them to do so.
- (5) The co-operation of the auditor.

It cannot be too strongly stressed that no mechanisation of the accounting system or alteration in method of accounting should be permitted until the auditor has had an opportunity of examining the proposals, otherwise he might be placed in serious difficulty not foreseen by the accountant. We shall consider the position of the auditor, however, in more detail later in this paper.

- (6) The personality to enable him to win, or, alternatively, to command, full support from his colleagues on the executive, in respect of any changes in method which affect their departments.
- (7) An open mind and freedom from prejudice.

It is also of importance to the success of mechanisation in the office that all forms in use in the business should be under the control of the accountant, in order to ensure standardisation and avoid duplication of effort, which is a constant source of waste in business.

We shall consider other matters of importance affecting the accountant when we deal with the question of installing the machinery.

SCOPE OF ANALYTICAL WORK AND ACCOUNTANCY SAFEGUARDS.

It has already been stated that the machinery must be the servant of the accounting and statistical system. Before, therefore, we can properly consider the machinery itself, we must have a knowledge of the work it will be required to perform and the safeguards that must be protected.

The amount of analytical work to be done will, of course, differ considerably in various concerns, according to the ramifications and nature of the business and the degree of efficiency it is desired to attain in the accounting and statistical system. It does not follow, therefore, that because a certain method of mechanisation has proved to be successful in one particular business it necessarily will prove equally efficient in another.

It has been indicated previously in this paper that the whole question of mechanisation of accounting is

tied up inseparably with sound accounting and statistical policy. It is essential, therefore, to consider this question, even to the examination of certain detail which may be considered by many accountants as being merely in the ordinary course of accounting procedure, for no method of mechanisation can ever be fruitful unless the accounting and statistical systems are on a proper basis.

This part of our subject can best be considered under the following heads:—

- (1) Classification of accounts.
- (2) Budgetary control.
- (3) The accounting and statistical system.

CLASSIFICATION OF ACCOUNTS.

The most important function of modern accounting is to present and interpret in an accurate and intelligent manner the results of the millions of transactions which take place in every active concern. If, therefore, that function is to be properly exercised so that the accounts will tell the whole story of the activities of the business, it is essential that there shall be a proper and adequate classification of accounts, so that all transactions of the same kind are treated in the accounting procedure in identical manner. A standard and consistent method of analysis is an indispensable condition, both to the success of the accounting function and the efficiency of mechanical methods.

To ensure consistent analysis, it is necessary that instructions be prepared laying down a standard practice for dealing with all accounting items, and once a standard practice has been established it should be interfered with only on the rare occasions necessary to meet changing conditions in the business. Otherwise, the inevitable consequence will be misleading and unintelligible results. It is obvious that, unless a standard practice of classification of accounts is adopted, all the work and expense of mechanisation will be rendered abortive.

When a properly planned classification of accounts has been developed and adequate instructions have been given as to its proper use, a better understanding of the accounting function will be realised throughout the organisation, which will greatly increase the prestige of the accountant and facilitate the introduction and use of machinery in the office.

The extent and nature of the classification will depend, of course, upon the size and constitution of the particular business and the extent to which the demand for adequate information has been fostered in the organisation. Care, however, must be exercised to avoid over-elaboration and, therefore, the expense of obtaining any desired analysis should be weighed carefully with the advantages to be gained from the additional information.

Expense accounts, in addition to being classified as to the nature of the expense, should also be classified as to department, so that an effective system of budgetary control, which is almost indispensable in any large business to-day, can be put into operation with greater ease.

It is advisable in attacking this question of proper classification of accounts to commence with the final accounts of the concern, for all analysis should provide the background and supporting data for these accounts. There must be properly constructed manufacturing and sub-manufacturing accounts, trading accounts and profit and loss accounts. These accounts should be so arranged as to be readily adaptable to the costing system, while at the same time they should show clearly the result of the operations in all the fields of activity exploited by the business. This calls for proper arrangement and grouping of all the items in those accounts, in the course of which the proper classification of all supporting accounts must necessarily receive attention.

It must also be remembered that the balance sheet, although not an account itself, is a statement of assets, liabilities and capital, purporting to show the position of the business as a going concern and is a summary of the balances of various accounts as at a given date. Let it show that position by proper arrangement of those assets, liabilities and capital, so that information as to working capital, net assets and reserves can be readily ascertained.

We are considering, of course, this question of final accounting from the point of view of classification of accounts and their adaptability to business requirements and not from the point of view of disclosure to shareholders, which subject is not within the scope of this paper.

The object in first obtaining the proper arrangement and classification of items in the final accounts and balance sheet is so that they will form the basis for planning the scope of the analytical work necessary for the proper classification of accounts generally and determining what analysis shall be left to the pure accounting function and what shall be provided through statistical channels.

BUDGETARY CONTROL.

Efficient organisation demands to-day the careful planning of all operations and effective control of expenditure throughout all the ramifications of business and, to meet this demand, further analysis has been called for to build up the system of budgetary control. In fact, budgetary control is nothing more than the control of the finances and operations of an undertaking by the setting of standards and the subsequent detailed comparison of actual results with those standards. If, however, these comparisons are to be effective they must be made in sufficient detail to enable wastages and leakages to be tracked readily.

Without a proper system of analytical accounting and the use of adequate office machinery, it is safe to state that the full demands of budgetary control in large concerns could not be met and, at best, the result of any such attempt would be merely the production of a guesswork budget lined up with more or less indifferent final accounts.

The budget itself is based to a large extent upon past experience, the record of which cannot be relied upon unless there has been in existence an efficient organisation of the accounting function.

We are, of course, only concerned in this paper with budgetary control in so far as it affects the analytical work of accountancy. We shall get a better grasp of the scope of analysis in this work if we examine the usual procedure adopted in compiling and using the budget, which is as follows:—

- (1) The marketing research and sales departments will make their estimate of turnover and advertising, selling and sales administrative expenses. The turnover will be analysed into quantities of detailed commodities.
- (2) The factory will then draw up its production schedule, based upon the sales department's estimate of turnover. Labour and material and other variable expenses required to meet the programme will then be estimated.
- (3) The purchasing controller will line up his programme and prepare his departmental expense budget, which may be combined with the factory estimates, or may be dealt with separately according to the particular form of organisation adopted.
- (4) The sales and factory estimates will then be carefully examined by the managing director, or controller, and after any necessary adjustments have been made will be handed to the chief accountant.
- (5) The chief accountant then prepares his budget of administrative expenditure and finally the cash budget and the complete manufacturing, trading, and profit and loss budget, which, after being passed by the managing director, or controller, is placed before the board of directors for adoption.
- (6) The manufacturing, trading, and profit and loss budget will then be handed to the cost department for the preparation of standard costs.
- (7) Subsequently, there will be an automatic analysis of the actual turnover and expenditure under the proper classifications, which will be compared with the budget figures and investigation directed where necessary.

Both in the compilation of the budget and the comparison of the actual figures with that budget, machinery plays an almost indispensable role in analysing and building up the required data.

It will have been realised, however, from the scope of the budget that much of the analysis required will have been accomplished in the ordinary accounting procedure, if there is in existence a mechanical accounting and statistical system which is fulfilling its proper function.

THE ACCOUNTING AND STATISTICAL SYSTEM.

The adjustment of the accounting and statistical system to mechanical methods is one of the most important factors to be considered in the introduction of mechanical accounting. We cannot, of course, go fully into this question by dealing with the many different mechanical accounting and statistical systems which are involved in the many different classes of business, otherwise we should have to

consider a book of no mean size instead of a paper on the subject of mechanical accounting.

It is necessary for us to bear in mind, however, the volume of analytical work required to meet present-day needs of business and to consider the accounting safeguards which must not be overlooked when any adjustments in method to meet the requirements of machinery are contemplated.

Each branch of the business has its own claims upon office mechanisation, and these will of course vary according to the size and nature of the business.

For the purpose of this paper we will divide and examine the volume of accounting and statistical data required under the following heads:—

- (1) Factory accounting and statistics.
- (2) Purchasing accounting and statistics.
- (3) Sales accounting and statistics.
- (4) General accounting.

We, however, shall be able to deal only with the general principles involved.

Factory Accounting and Statistics.

The factory manager has a greater regard for factory statistics and system to-day than formerly and finds that it is now a practical impossibility for him to run his factory efficiently without adequate accounting and statistical information.

In addition to proper and adequate manufacturing and sub-manufacturing accounts showing in total materials used, direct and indirect labour and grouping the fixed and variable factory overhead charges under separate headings, he requires this information to be analysed for him over departments, processes and costs. He also requires statistical information with regard to orders received and executed, daily output in each department, progress and production planning, up-to-date costing, labour and machine efficiency, control of stores and stock of manufactured parts, factory internal and external transport, fuel consumption and efficiency, &c. He is not content with values; he also requires quantity—information under proper classifications.

The factory manager is also definitely interested in the capital employed in his factory and sometimes desires to know how that capital is pulling its weight with regard to the departmental factory space occupied, either per square or cubic foot.

Apart from factory accounting, his principal contact with the office is in connection with costs, and, in addition to overhead charges, this covers the two most important factory items from the points of view of office mechanisation and the preservation of accounting safeguards, namely, materials and labour.

Materials.—The cost department, of course, is not concerned with materials until they are issued, but there must be adequate safeguards as to proper receipt of the materials, efficient store control and the proper issue of materials.

Formerly, the practice was to enter up details of the goods received in a goods received book, and time was often lost later when the invoice was received in searching for information of the receipt of the goods.

To-day, these particulars should be recorded by typewriter on a form called an "apron," giving details of the receipt of the goods, one copy remaining in the goods inwards department as a store record and the other being sent to the central invoice department to be attached to the invoice when received. This "apron" system not only saves time in dealing with the goods, but ensures that particulars of all outstanding invoices are readily available at balancing periods and that store and stock records are kept up-to-date.

The stores should be controlled as to maximum and minimum quantities to be kept, and the store records, to facilitate easy reference, should be typed on visible index cards. This method should prevent the unnecessary locking-up of working capital in the purchase of materials, which is a matter of the utmost importance in these days of violently fluctuating prices and one which no management can overlook without placing the whole business in jeopardy.

Stores should be issued only on production of standardised requisition forms, which should contain all costing information and should be signed by a responsible party, such as the shop foreman. The information as to issue of stores will be scheduled each day under the respective cost operation numbers and a copy sent to the costing department. A proper system of dealing with surplus materials issued will also have to be provided by the use of supply notes from the factory to the store. The method of handling the stores requisition for costing purposes will, of course, vary according to the type of office machinery used in the costing system.

Where tabulating machinery is in use cards will be punched with the requisite costing information.

Continuous stocktaking systems in large businesses would be rendered inefficient without the use of office machinery, more particularly is this so where there is in existence a unit stock control system. Formerly, the half-yearly physical stocktaking was relied upon almost entirely for stock information. To-day it would be extremely difficult, if not impossible, to keep pace with business under such conditions and physical stocktaking is now looked upon as one of the safeguards, acting as a check upon the continuous stocktaking system. This safeguard, of course, must be preserved, being now rendered much less expensive and much more simple by the use of modern store methods and the employment of adding and calculating machines.

The office machinery employed in analysing materials will depend, of course, upon the size of the business and the nature of the analysis required. There may be a combination of calculating machines and typewriters with detachable adding box attachments called totalisers, accounting and statistical machines may be used, or the whole of the work may be done by tabulating machines together with their accessories.

Labour.—The amount of analytical work required and the speed with which it has to be prepared in connection with the labour expense of the modern

business is so great as to render pen-and-ink methods almost obsolete.

This work naturally divides itself into two parts, which form a total check upon each other, being those of accounting analysis and statistical analysis.

The accounting analysis provides for the preparation of the pay roll, dissecting the total salaries and wages over departments and sections of departments, so that predetermined totals are independently available as a check on the statistical analysis. Machines, not provided with typewriting equipment, which have been specially built for the purpose can be used for this work, combined with the use of some addressing machine, such as the Addressograph or the Adrema. There is so much repetitive work involved in the preparation of pay rolls that it will be found generally more economical to use this combination of machines rather than the typewriter accounting machine. However, each case must be considered upon its own merits, and sometimes a combination of calculating machines and typewriter adding machines is used.

The statistical work required by the factory in respect of labour expense will be for the purpose of costing, ascertaining labour efficiency, studying the effect of the peak production factor, and to meet the requirements of any bonus scheme that may be in existence.

The usual analysis required will be under piece-work, time-work and bonus work, which will be further analysed under direct, indirect and supervision labour, classified as to male and female, and may be required under departments, operations, processes, jobs, machine units or production units. This analysis will usually also be required as to amount, hours worked and quantities produced.

The origin of both the accounting and statistical analysis will be either a time ticket, or time-recording clock card and piece-work and job cards.

The statistical analysis will be done mainly through the costing department, either on tabulating machinery or by means of a labour distribution sheet prepared with the aid of adding and calculating machines and non-typing accounting machines. The result of this statistical analysis will then be checked in total with the accounting analysis which has been prepared independently.

There must be a proper system for making-up and paying wages and the clerks engaged in this work should not be concerned in either the accounting or statistical analysis. The payment of wages should be made from recognised pay centres. Coin counting and sorting machines will be found a useful aid to the preparation of wages for payment.

The safeguards, which are preserved against collusion and the insertion in the pay roll of "dummy" employees, are therefore as follows:—

- (1) The reconciliation of the independent analysis for accounting and statistical purposes.
- (2) The use of time-recording clocks.
- (3) The independent payment of wages.

Time-recording clocks can now be used which are electrically controlled from a master clock, which ensures the same time being recorded throughout the factory. These clocks are not only used for timing employees in and out of the factory, but they are also employed recording actual time on jobs or processes.

Factory Overhead Charges.—With the growth of experience in costing methods has come the realisation, among other things, that careful and scientific analysis of overheads is absolutely essential to the proper ascertainment of cost.

The early methods of grouping the overhead expenses in the accounting system, and allocating them to costs on the basis of a percentage on materials or on materials and labour combined, have in general been proved not only inefficient, but entirely misleading and in many cases ridiculous.

To-day, cost allocation of factory overheads calls for analysis of expenditure by reference to departments, processes, power units, factory machines, factory area, &c. The aid of adding machines, calculating machines and, sometimes, accounting and tabulating machines, therefore, has had to be requisitioned to cope with this analytical work in order that it can be accomplished with greater accuracy, at efficient speed, and at an expense which justifies the existence of a costing system.

Mechanical methods also facilitate the reconciliation of the cost accounts with the financial accounts, when both are built up by mechanical means from the same original documents.

Purchasing Accounting and Statistics.

The method of dealing with the bought ledger or accounts payable function of accounting and the type of accounting machinery to be applied will depend, of course, upon the nature and extent of the work involved.

In considering the application of mechanical accounting to this accounting procedure, the method of dealing with invoices, the keeping of the accounts payable and method of making payments must come under review.

It has already been indicated that there should be a central department for dealing with invoices and the method of handling goods or materials received under the "apron" system has been explained. All invoices, whether for goods received or expenses, should first pass through this central department for registration.

The successful working of the accounting system with mechanical means in the accounts payable department depends to a large extent upon the prompt receipt of invoices. At one time this was an immense stumbling block, but suppliers have now, in the majority of cases, been educated to sending in their invoices upon the despatch of goods.

When the invoices are received, they should have attached to them the copy of goods received "apron." They should then be checked or marked off, as to prices, quantities and specification, with the copy

order which will have been received from the purchasing department. The invoice is then ready to commence its mechanical tour.

After the foregoing procedure the invoices will be checked arithmetically and, for this purpose, if the daily number of invoices dealt with is large, it will be advisable to instal a battery of calculating machines. The next procedure will be to register the invoices, and this will be done on typewriters with adding attachments, or typewriter-adding machines. The method of registration may depend upon whether the accounts payable are grouped alphabetically, geographically or departmentally, or, alternatively, the registration may be made departmentally and the invoices subsequently sorted to alphabetical ledgers for the purpose of obtaining a predetermined total for the control of the particular group of ledger accounts, the latter course being advisable.

The registration sheets will, in effect, take the place of the bound bought journal.

Expense invoices, after being classified by the internal audit department, will also be registered, a separate registration sheet being used for each class of expense.

The accounts payable invoices will be sorted and passed to the ledgers for posting to the individual suppliers' accounts by means of accounting machines and totals will be posted to the ledger control card. The ledger accounts should be kept on cards which may be contained in trays, or in a loose-leaf ledger which operates as a tray when in use, but can be closed as a loose leaf ledger when not in use. These trays, which are mounted on trollies and, therefore, easily transportable, are kept alongside the machine operator while in use, and when not in use are generally locked in a special fire-proof strong room.

The mechanisation of the accounts payable procedure has meant the training of suppliers to receive the purchaser's statement of account instead of sending his own. This was at first a difficulty, but now suppliers readily fall in with the suggestion, as they find it of advantage to themselves.

The ledger machines will each be responsible for an alphabetical group of suppliers, and the fact that each machine will have its own control account, which will be checked independently by the group ledger total account prepared by the statistical department, renders localisation of errors much easier, particularly as each ledger will be balanced daily. This daily balance of ledgers is one of the greatest advantages of mechanical accounting, and it extends, of course, to all ledgers, whether they be accounts payable, accounts receivable, or nominal.

The question of discounts is also of great importance and provision must be made upon the ledger cards for record of discount terms, or, alternatively, a visible index should be kept alphabetically giving particulars of each supplier and terms of trading.

The rule as to payments should be that all, other than petty cash payments, must be made by cheque. There have been in existence for some time various cheque-writing devices introduced as a protection

against the fraudulent use of cheques. From these has developed the pin-point cheque-writing typewriter, which not only types the cheque with the same protection, but at the same time, and made as copies of the cheque itself, prepares an authorisation sheet giving authority to the bank to meet the cheques mentioned therein and also prepares a statement in duplicate which becomes the accounts payable cash book, the duplicate being used as the cash posting medium to the ledger.

The authorisation sheet, which can contain particulars of at least fifty cheques, is signed by the executives in the same manner as they would have signed the cheque before the introduction of this system, the cheques themselves usually bearing facsimile signatures of two officials of the concern.

It is obvious that the saving of executive time in this direction is no mean consideration, for, in place of every signature required formerly, at least only one in fifty is now required.

From the point of view of safety the authorisation sheet, which is despatched to the bank at the same time as the cheques are posted, ensures that no cheques are met except those officially drawn and authorised.

In addition to the accounting detail dealt with by office machinery in connection with accounts payable, there is a great deal of statistical analysis to be mechanically performed. This statistical work is required for purposes of unit stock control, control of departmental commitments and the purchasing controller may require statistical information as to prices and quantities purchased in particular markets, or from particular suppliers. This work is sometimes done on typewriter accounting machines and sometimes on tabulating machines, where these latter machines are already in use on other work.

The safeguards still retained in mechanisation in connection with the purchasing accounting branch of the accounting function, therefore, are as follows:—

- (1) The ledger machine operators are not allowed to handle cash, and the cashiers are prohibited from dealing with ledger machines or accounts.
- (2) Group ledger total accounts are kept by the statistical department as a check upon the group ledger control accounts kept by the machine operators.
- (3) The basic documents used for both accounting and statistical purposes are the properly registered documents of original entry.
- (4) A more efficient check on goods received is provided.

Sales Accounting and Statistics.

There is, possibly, greater scope for mechanisation in connection with sales accounting and statistics than is the case with any other branch of the accountancy activities. At all events it is this branch of accounting which usually receives first attention when mechanisation has been decided upon.

The accounting field covers invoicing or billing, sales ledgers or accounts receivable, cash receipts and credit control, in all of which there is room for

mechanisation of some form of labour-saving device, such as the visible index.

Accounting analysis usually requires the sales to be dissected into wholesale, retail, cash, credit, mail orders, and export. Also, further accounting divisions have to be made to meet hire purchase, instalment sale, and sale or return business, and to deal with returns and allowances and cash discounts.

In addition to the foregoing, the statistical sales dissection may have to be made departmentally, geographically, over commodities, to group ledgers, to sales people for commission purposes, and for stock control requirements. Usually this analysis is done by the statistical department independently of the accounts receivable department, and provides, among other things, an independent check on that department by the preparation of sales ledger total accounts for each group of ledgers, which are agreed daily with the control accounts of the various group ledgers.

Further analysis of a statistical nature may be required for the purpose of ascertaining velocity of turnover in certain districts or by particular agents, for calculating royalties payable, for providing information as to deliveries by districts, for the purpose of testing the pulling power of advertising—either by reference to the form of advertising or by district, and for the purpose of ascertaining the efficiency of salespeople. Most of this analytical information will be required in quantities and types of commodities as well as in amount.

It is obvious, therefore, that without mechanisation, in a business of any size, it would be impossible to cope with the work entailed in sales accounting and statistical analysis, except at enormous expense, rendering much of the work itself not worth the effort.

The basis of the analysis and posting media will be the documents of original entry, such as the sales dockets, duplicate cash receipts, returns vouchers, &c. The documents of original entry will be numbered and, in order to ensure that all dockets are accounted for, an adequate system of registration must be in use and a proper system of filing installed, so that all dockets may be readily available for reference when required subsequent to posting.

It may be found necessary, on the grounds of economy and/or convenience, to have the documents of original entry prepared by hand, *e.g.*, where the business is engaged in retail distribution, while in other cases, where sales are not made over the counter, it will in the main be more expeditious to have them typed on accounting machines specially built for the use of fanfold or continuous stationery.

In general, the machines required to meet the needs of sales accounting and statistics will be adding, calculating, billing or invoicing, and ledger-posting machines. In addition, or alternatively, according to the circumstances, cash registers may be brought into use for dealing with cash receipts, and there are special types of accounting machines suitable for hire-purchase and hotel accounting.

In some concerns tabulating machinery is employed throughout the accounting system, while in other

cases accounting machines are now used which combine the functions of the billing and ledger-posting machines.

The adding and calculating machines are more particularly employed in the statistical and internal audit sections of the accounting department in checking calculations on original documents, not already prepared on accounting machines, and analysing sales to salespeople and group ledger total accounts.

The main safeguards preserved in the mechanical sales accounting procedure are as follows:—

- (1) The daily check on the group ledger control accounts by the independent sales ledger total account prepared by the statistical section.
- (2) The provision that group ledger machine operators are not allowed to handle cash and cashiers are not permitted to touch ledger accounts.
- (3) All cash received must be banked daily.
- (4) The basic documents used for both accounting and statistical purposes are the properly registered documents of original entry.

General Accounting.

The nominal and private ledgers should contain within themselves all the necessary data for the extraction of a trial balance. Whether or not mechanisation should be applied to these ledgers will depend upon the circumstances of each business and the extent to which analysis of nominal and private ledger accounts is required, but whether these ledger accounts are written up by hand in loose-leaf or bound ledgers, or are prepared on the card or loose-leaf principle by machinery, it is essential that they should be so arranged and classified as to provide the greatest facility for the preparation of the periodical manufacturing, trading and profit and loss accounts and the balance sheet.

The nominal and private ledger accounts will be written up from the main cash book, the expense summary cards prepared in the central invoicing department, and from the purchases and sales ledger total accounts prepared in the statistical section, or, alternatively, a further check may be provided by building up these total accounts independently in the ledgers from the merchandise summary cards, cash analysis, &c. In addition, it will probably be necessary to keep analytical journals for the nominal and private ledgers to take care of extraordinary items outside the ordinary accounting routine.

MECHANISATION AND THE AUDITOR.

It has already been emphasised that no alteration in method of accounting should be permitted without prior consultation with the auditor. The main reason for this is to give the auditor an opportunity of satisfying himself as to whether or not he can adjust his audit programme to meet mechanical accounting conditions without violating the duties of his office.

Apart from mechanical accounting, in the past the auditor frequently has had to adjust his programme and requirements to meet changing accounting conditions. At one time he insisted upon all items not

passing through any other book of original entry being journalised. The business need for the speedy production of audited accounts, however, persuaded him to modify this demand with regard to the journalisation of unexpired payments and accrued charges, which were then dealt with by bringing down such items in the particular ledger account concerned without being passed through any book of original entry. Again, when business transactions were on a smaller scale than at present, he considered it his duty to check in detail all transactions of whatever nature entered in the books of account, but with the subsequent introduction of ledger total or adjustment accounts he displaced much of this detailed checking by relying upon a system of check by tests.

In examining mechanical methods, therefore, from an audit point of view, the auditor must be prepared to make necessary adjustments in his programme to meet business requirements, provided he can satisfy himself by adequate tests that—

- (1) All transactions are properly recorded.
- (2) All transactions are properly authorised.
- (3) The usual accountancy safeguards have been preserved and the possibility of collusion reduced to its minimum.

In addition, he should satisfy himself as to the reliability of the machinery itself and that the method of handling documents of original entry does not prevent him tracing the records right through the accounting system if he so desires.

Mechanisation has greatly reduced the human element in accounting, but it has by no means eliminated it. The auditor, therefore, should carefully examine those parts of the mechanical system where the human factor comes most into play and see that the system of internal check in use to meet this condition is adequate. In this respect he may be satisfied that, in addition to his general audit tests, he can rely to a great extent upon the checks given by the machinery itself, such as proof sheets, audit strips and the working to independent predetermined totals and the further check provided by a proper system of control accounts.

The general system of internal check and methods of allocating expenditure must also receive the careful attention of the auditor.

Mechanical accounting has undoubtedly decreased the detailed audit work of the professional accountant, but, on the other hand, it should have increased the work in his capacity of accountant if he is really alive to the possibilities of office machinery, for his services will be called upon both to advise as to suitable machinery and to devise suitable mechanical accounting systems. This has been recognised, at least, by some of the larger firms of professional accountants, who now employ mechanisation experts on their staff.

The need for co-operation with the professional accountant has been recognised by the manufacturers of accounting machines, who in many cases employ qualified accountants on their selling staffs which should ensure a proper appreciation of the auditor's viewpoint.

Accounting machinery has been developed to such a high state of efficiency that auditors, who are familiar with its use, rarely have any auditing objections to offer against its employment at the present time. In this respect the following typical replies to a questionnaire on the subject received from two of the leading manufacturers are interesting:—

- (1) "It may properly be said that the objections raised by auditors as a rule are mainly due to their very natural and proper conservatism, as well as to the fact that only in recent years have any great number of the profession become in any degree familiar with the extent to which machines can actually aid in the solution of their problems. The increased interest which members of the profession have shown in machines and machine methods in recent years is certainly bringing about a more favourable attitude on their own part toward office mechanisation, but also a concurrent improvement in the methods of application."
- (2) "The majority of objections that arise in the minds of accountants and auditors who are not familiar with machine methods, can be traced to the necessity of doing certain things in certain ways—under the pen and ink system. Long years of experience of pen and ink methods have taught accountants and auditors that certain practices are essential for checking and proving all book-keeping work that is dealt with by the human hand and brain.

"It is easy to appreciate that an accountant or auditor who has little or no acquaintance with machine methods finds it extremely difficult to understand how certain of these established practices can be entirely dispensed with under the machine method with any degree of safety.

"Nevertheless, it is a fact that in an efficient machine system—with its automatic mechanical proof of every stage of the routine right up to the final balance—the majority of the objections visualised simply do not arise in actual practice. It is a matter of obtaining a complete picture of the whole routine, rather than of looking at one particular phase of it in the light of past experience.

"Actual inspection of an efficient machine installation will quickly dispel the doubts of any accountant or auditor, who is concerned about what will prove to be the imaginary drawbacks of the machine system."

There are still, however, some professional accountants who find it difficult to adjust themselves to mechanical methods, but as experience of mechanisation grows this difficulty tends to become eliminated. The prejudices against the use of loose-leaf or card ledgers and the absence of journalised entries are fast disappearing with the present successful use of mechanical methods in the largest and most reputable concerns in almost every line of business. It seems, therefore, that the time has arrived when greater attention should be paid to the subject of mechanical

accounting in the professional examination syllabus and arrangements made for lectures and machine demonstrations for accountant students, so that the future generations of professional accountants will secure and maintain a status in this ever-widening field of accounting procedure such as they have hitherto enjoyed in past accounting practice.

INSTALLATION OF MECHANICAL ACCOUNTING.

In order to obtain the utmost efficiency from accounting machines it is absolutely necessary to study carefully the requirements for its proper installation, for sometimes the machines are blamed for faults arising from the lack of attention to what are thought to be obvious details.

The first essential is that the accountant must carefully study, in collaboration with the auditor, any alterations required in the accounting system to meet the installation of mechanical methods and also to consider the effect of such changes on business routine.

It will be found generally that few accounting machines can be made to pay their way unless they are employed almost to full capacity. To enable this to be accomplished, the work of the machines must be carefully planned and allotted by the accountant, who will find the machine manufacturers, or their selling organisations, eager to give him the utmost help in this direction.

Accommodation should be provided which will facilitate the full employment of the machinery by the centralisation of the work. The lay-out of the accounting machinery itself should be so arranged that the work flows freely from one operation to the next, so that the amount of running about by operators and others is reduced to a minimum.

Careful attention must be given to the provision of adequate lighting arrangements, both daylight and artificial, which latter should be so distributed as to give a proper diffusion of light, thus avoiding what might otherwise be a serious handicap on the machine operator. The sitting posture of the operators should also be studied to provide the maximum avoidance of fatigue.

The noise factor, which is ever present when machinery is employed, should also be carefully considered and, if deemed necessary, arrangements should be made to dampen this down as much as possible by acoustic treatment of ceilings, floors and walls, &c. The leading makes of acoustic materials are Acousticos, Celotex, the Johns-Manville System, May's Acoustic Products, Newalls Asbestos Products and Slagbestos. Machine manufacturers have given quite considerable study to this problem and in many cases have made great improvements in the machines themselves from the standpoint of noise reduction.

The use of machinery in accounting requires a higher standard of intelligence and alertness in the machine operators than is usually required in clerks engaged in the ordinary routine of book-keeping. The accountant, therefore, should ensure that his operators have had sufficient training before he installs his

machinery. Here again most machine manufacturers, or their selling agents, will give the utmost help and not only train an adequate number of machine operators, but provide supervision for some time after installation.

Where machinery is used to any great extent, proper provision should be made for its upkeep and supervision, so that any initial difficulties can be promptly dealt with. Where the machines are operated by electrically driven motors, care should be exercised in providing safeguards, by supervision or otherwise, to ensure that the electric current is not left switched on when the machine is not in use.

Installation difficulties generally arise from lack of co-operation of the staff, inadequate planning, and the necessity sometimes of running the old and new systems together for a period. These difficulties, if they do arise, are soon overcome with patience, determination, and the unstinted assistance generally given by the manufacturers.

ACCOUNTING AND CALCULATING MACHINERY.

We have thus examined the growth in analytical work to meet management demands, the higher status of the accountant, the need for a proper classification of accounts, the general application of machinery to the accounting and statistical system, the relation of mechanisation to the auditor, and the precautions to be taken in planning the installation of machinery. It remains for us now to consider the factors governing the choice of machinery and the different types of machines available.

CHOICE OF EQUIPMENT.

There is now on the market an almost unlimited range of equipment for mechanical accounting and calculating, in each class of which there are different types, with special advantages of their own and varying degrees of efficiency. It is not within the scope of this paper, however, to express any preference for any particular type of accounting or calculating machine, as this can be done only by reference to the varying accounting needs of each business. It therefore is possible to give only a guide to the general factors which should influence the choice.

All accounting machines are equipped with features that practically produce the same accounting or statistical results, and the relative merits of the various classes of machines will depend on the method employed to obtain these results.

The main considerations in the choice of accounting, statistical, or calculating machines will be, therefore :—

- (1) Speed and simplicity of operation ; in this respect it will also be necessary to study the merits or demerits of mechanically and electrically operated machines, to distinguish between machines with and without typewriter attachments and the difference in machines upon which the operator's work is visible or non-visible. The number of machine operators necessary to complete an accounting or calculating record should also be examined.

- (2) Accuracy and method of proof.
- (3) Flexibility, that is, capability of being used for varying accounting operations.
- (4) Space required for efficient working of machines.
- (5) Cost, that is, the expense in relation to the advantages to be obtained from the use of a particular type of machine, not merely from the point of view of savings in expense, but also in the provision of greater accounting efficiency.

In comparing the different makes of accounting machines, special consideration should be given to keyboards, carriages and method of accumulation.

The four main types of keyboard are the full or multifigure visible keyboard, ten-key keyboard, twelve-key keyboard and the typewriter keyboard.

The usual types of carriages are the manually tabulated, key tabulated, visible automatic and blind automatic. Manually tabulated carriages, however, are not found on the latest machines, as they are generally admitted to be too slow in operation.

The methods of accumulation are register accumulation and adding machine accumulation. In the former case totals are cleared by copying them and subtracting in the machine, while in the latter case the machine can be cleared by depression of a motor bar.

Other important matters to consider before the choice of machine is finally made are method of stationery feed, automatic printing of ciphers and punctuation, split or unlimited platen devices, cross-footing totalling devices, method and proof of pick-up of old balances, capacity of machine for storing totals, method of transfer of totals from one register to another, and manufacturers' service arrangements.

Each type of keyboard, carriage, method of accumulation, &c., must be considered by reference to the particular work for which the machine is required. The main points to be watched are speed of operation and degree of effort required by the operator.

The most important guide in making a choice of machine is the demonstration of the machine itself, which will be given freely by the various manufacturers. The demonstrations, however, if possible should be obtained on the actual work for which the machine is being considered, so that an exact comparison of results may be made.

DIFFERENT TYPES OF MACHINES AVAILABLE.

In order to make this paper of the utmost use to accountants, it is necessary to detail, as far as possible, some of the different types of adding, calculating and accounting machines at present on the market.

It will not be possible, of course, to go into the mechanical operations of all these machines, or even to detail the specialities of each make, and for that reason the names and addresses of the principal manufacturers or agents are given as an addendum so that accountants can arrange for demonstrations at will.

We can deal here only with the special features of standard machines, but the leading manufacturers of accounting machines usually undertake, when necessary, and within limits, to adapt their standard machines to the special requirements of any particular business or accounting procedure.

For our present purpose we will divide the machines for consideration under the following general heads:—

- (1) Adding and calculating machines.
- (2) Accounting machines.

There are, of course, numbers of other machines and gadgets in use in the office, such as duplicating, franking, dictating, letter opening, addressing, endorsing and signature machines, &c., but which do not come within the scope of a paper on mechanical accounting.

The order in which the various makes of machines are mentioned is purely alphabetical and must not be taken as suggesting any order of preference, which can be decided only in relation to the actual work for which the particular class of machine is required.

Adding and Calculating Machines.

The difference between adding and calculating machines lies in the fact that the former machines, although in some cases built to subtract and multiply by adding methods, are primarily built for pure addition work, while the latter machines perform the functions of addition, subtraction, multiplication and division.

Both classes of machines, which are made in portable, desk and stand models, may be operated either by hand, electrically, or in some cases by both methods, and may be listing or non-listing machines. In addition, duplex mechanism is fitted to many machine models, which enables two independent sets of figures to be listed and added simultaneously. This feature is especially useful for trial balance purposes, as it permits the machine to accumulate separate totals of debit and credit balances concurrently. Nearly all makes can be supplied for £ s. d. or decimal additions and calculations, and there are machines available for calculation of weights and measures.

Adding machines are generally of the visible keyboard type and are in three classes, standard keyboard, twelve-key keyboard and ten-key keyboard. They are nearly all fitted with total, sub-total, non-add, repeat and error control keys and the listing machines have usually a non-print lever. Adding machines are supplied with, or without, direct subtracting device and are generally designed to include multiplication.

Calculating machines can be obtained with either fully automatic or semi-automatic mechanisms for multiplication and division.

The best known makes of adding machine grouped according to style of keyboard are as follows:—

Standard keyboard.

Addo, Barrett, Burroughs, Comptometer, Direct, Monroe, National and Victor.

Twelve-key keyboard.

Dalton, Remington, Sundstrand and Monarch.

Ten-key keyboard.

Odhner.

Calculating machines are of three types, namely, standard keyboard, barrel and slide setting, the principal makes of which are as follows :—

Standard keyboard.

Archimedes, Burroughs, Comptometer, Hamann, Madas-Portable, Marchant, Mercedes-Sterling, Millionaire, Monroe and Muldivo.

Barrel type.

Brunsviga, Lusid, Marchant-Junior, Mercedes-Melitta, Mira and Odhner.

Slide Setting type.

Mercedes-Euclid, Tim and Unitas.

Some of the standard keyboard type of calculating machines mentioned above also combine the slide setting operation.

Accounting Machines.

There is an almost unlimited choice of accounting machines now on the market, each make capable of obtaining similar accounting results by differing methods, and, therefore, with differences as to speed of operation, flexibility, methods of proof and expense.

The accountant must consider, however, the different types in the light of the work for which the machine is required and no general recommendation can be given within the limited scope of a paper of this character. For example, for hire-purchase or hotel accounting the National 2000 or 3000 class machines may be found to be the most suitable, while for preparation of payrolls and similar work Burroughs or Smith Premier machines may possibly be used to greater advantage. Again, in engineering works, the punched card machines of Hollerith or Powers may be required.

The choice of machine all depends, therefore, on the nature and volume of the work involved and the limit of initial expense. The points to watch when comparing the merits of various makes have already been considered.

In nearly all cases, accounting machines can be had either hand or electrically operated, and many of them are fitted with cross totalling devices.

While there are differences in construction between different makes within each classification, the following are the main classifications of machines :—

(1) Typewriters with adding box or register attachment.

Typewriters of nearly all makes are built for invoicing or billing, with special attachments to take fanfold, interfold and continuous stationery. In addition, typewriters with adding box attachments, which are detachable, are used for billing, ledger posting, cheque writing and cash accounting under the system that has already been explained when dealing with accounts payable.

This type of machine is built for vertical or cross totalling as required.

Some machines of the vertical type are capable of giving up to thirty vertical totals and in addition may

be fitted with a dual cross totalling mechanism; which gives two horizontal totals which can be used for sterling, sterling and currency, units and currency, or units and sterling.

Although these accounting machines can very often be usefully employed in the general scheme of mechanisation for large concerns, much greater scope will be found for their employment in the smaller business. They can be used either as accounting machines with full typing facilities, or as ordinary typewriters, although it is not economical to use the machine in this latter capacity.

The principal makes of this type of accounting machine are Remington, Smith Premier and Underwood.

(2) Flat-bed type.

Machines of the flat-bed type are similar to the typewriter class, but instead of the printing being done on the usual typewriter carriage the machines are mounted upon a flat platen or table, upon which the accounting forms are placed and operated upon by the typewriter, which moves automatically to each writing position up and down the table on ratchets. Machines of this type are built for all kinds of accounting work, and the principal makes are Elliott-Fisher and Mercedes.

The National also have a flat-bed type of machine, not of the typewriter class, which performs four operations simultaneously.

In addition to the above, Elliott-Fisher still build and market a flat-bed type of machine for working on bound books, but this is a clumsy method of accounting.

(3) Adding machine type.

This type of machine, which has for its basis the adding-subtracting machine, is built either with or without typewriter combination, while other machines in this class have the printing of special words such as "Goods," "Cash," "Returns," &c., provided in the machine itself.

These machines are also supplied with an automatic dating device, and they are suitable for all kinds of accounting and statistical work. There are special machines for dealing with cash, hire-purchase, public utility, bank and all classes of specialised work. There are also machines in this class for cheque and receipt writing, cash accounting and the preparation of dividend statements and warrants.

The accounting machines of this type are made with two different styles of keyboard, the visible standard adding machine keyboard and the twelve-key keyboard.

The principal makes with the standard keyboard are Burroughs and National, who both have an exceedingly fine and efficient range of this class of machine.

The principal makes of the twelve-key keyboard machines are the Dalton and Sundstrand, which make a speciality of the touch operation, that is to say, operators are trained to work by touch without watching the keys. The advantages of this method in ordinary typewriting work are well known and the use

of touch operation in figure work by efficient operators may be of equal value.

Machines of this twelve-key class do not, however, automatically print cyphers, and when it is considered that it is estimated that from 30 per cent. to 50 per cent. of all figure work is made up of cyphers it will be realised that the lack of this feature is a distinct handicap.

The principal difference between the typewriter-adding machine combination and the typewriter with adding box attachments, previously mentioned, lies in the fact that the former machines were built primarily as adding-subtracting machines, the typewriter equipment having been added subsequently, while the latter machines were built for use as typewriters with the subsequent addition of adding boxes, or totalisers.

(4) *Punched card or tabulating system.*

The punched card, or tabulating, system is one which has come more to the front in recent years. It is more particularly suitable for businesses in which there is a great deal of analytical work to be done under many classifications, because this system is expensive, from the point of view of either capital outlay or rental and therefore requires to be worked to full capacity. It differs entirely from other accounting machines. The principal difference is that it is not only a machine, but a system.

The basis of this system is provided by cards punched with the data taken from the documents of original entry, the punched holes supplying the means of selection for sorting and tabulating. The system consists of four operations, punching, automatic verifying, sorting and tabulating. All work becomes mechanical after the original punching and verification operations, which are the only hand operations, and thereafter the human element is reduced to a minimum. Gang punches are also supplied when required for punching numerous cards with the same information at one operation.

The two makes of this class of accounting machinery, which is used in some businesses throughout the whole accounting and statistical system, are Powers-Samas and Hollerith.

In the case of Hollerith the punching, verification and sorting operations are standard to all installations, but there are varying types of tabulators as follows :—

Hollerith Non-Listing machine, which merely totals the cards in counters or registers, leaving the operator to record by hand the totals shown on the counters.

Hollerith Printing and Listing machine, which either lists the information contained on every card and accumulates totals and prints them when required, or it will merely print totals for groups of cards. This type of machine is generally used for statistical and costing work.

When Hollerith machines are applied to billing, ledger posting or other accounting work, two fitments are attached to the tabulator, one for automatic subtraction and the other a printing device for describing the items. An automatic statement device

is also fitted to the ledger posting machines to cope with continuous fanfold stationery.

Powers-Samas have a similar range of machines to Hollerith, the main difference between the two being that, while Hollerith tabulators are operated electrically by plugs which can be adjusted at will, Powers tabulators are mechanically operated by pre-determined pin boxes.

Hollerith tabulating speed is 9,000 per hour, while that of Powers varies from 4,800 to 7,000 per hour, according to the class of work to be operated. The sorting speeds of the two systems are the same, being 24,000 per hour.

Powers also make a smaller scale machine, which is called "Powers Four," suitable for accounting work in smaller concerns.

Hollerith machines, except punches, cannot be purchased; they can only be rented, while those of Powers cannot be rented but must be purchased either outright or on hire-purchase.

The Paramount system, although not an accounting machine system, also provides for punched cards and sorting by needle, but no provision is made for tabulation. This system is useful when the tabulating work is so small in volume that it can be accomplished better by hand, or in conjunction with the use of adding or calculating machines.

(5) *Campos type.*

The Campos machine, which is a new machine of a semi-tabulating type, in a class by itself, has a double entry device and 1,000 registers. It will accumulate amounts in any one of these registers for any length of time. It is not so flexible as some of the other makes of machines, but has great possibilities and is worth investigation.

The main features of this machine are that it will :—

- (a) Automatically pick up and print the old ledger balance.
- (b) Print debits and credits automatically in their correct columns.
- (c) Automatically compute and print the new balance.
- (d) Store such new balance.
- (e) Automatically accumulate postings for double entry purposes.
- (f) Automatically give a trial balance by the setting of a lever.

This machine will probably be found most useful for stock control work, or expense analysis. In view of its lack of flexibility it is, however, an extremely expensive machine.

(6) *Copying type.*

A German machine which has just been introduced on the British market is also in a class by itself and is styled "Ormig." It has been in use in Germany for some time with success, but is little known in this country.

The "Ormig" is in fact a copying machine. The original entries are made on a sheet of paper called the "Master" with a sheet of Ormig Carbon placed behind it. In this manner a negative or mirror print

impression is obtained and at the same time, and by the same operation, a duplicate master is prepared which becomes virtually a book of original entry when used for accounting purposes.

The master can be handwritten, typed, or prepared on any accounting or tabulating machine and once it has been checked it is claimed that the possibility of subsequent error is eliminated.

The pick-up of the master sheet is automatic after placing it on the Ormig machine, which is a flat table with a rotary copying device and similar in appearance to many ordinary duplicating machines. The ledger cards, dockets, or records are fed into the machine by hand and each posting is effected by the depression of a treadle, which operates the rotary drum upon which the master has been secured. Alignment is instantaneous and registration is automatic.

The Ormig method can be applied to every class of accounting and statistical requirement of a posting or a copying nature. There is, however, no adding or calculating device attached to the machine, and all postings are made in detail, which somewhat limits the scope of the machine.

CONCLUSION.

In conclusion it must be emphasised that, if mechanical accounting is to be employed with full benefit, we must realise not only the need for the production of adequate data, but also the even greater necessity for the proper arrangement of that data and its intelligent interpretation. In this latter sphere the professional accountant plays an all-important part by directing investigation into its proper channels through the medium of his detached view of the business as a whole.

There is no doubt that mechanical accounting has not only come to stay, but will continue to grow and as time passes will become more and more simplified in operation. As professional accountants, we must be fully alive to this fact and take it into full consideration when devising or overhauling accounting systems.

ADDENDUM.

Type.	Name and Address of Maker (or Agent).	Trade Name.
ADDING MACHINES	Block & Anderson, Ltd., Brunsviga House, 3 Snow Hill, London, E.C.1.	Victor
	Burroughs Adding Ma- chine, Ltd., 136 Regent Street, London, W.1.	Burroughs
	Felt & Tarrant, Ltd., Aldwych House, Ald- wych, London, W.C.2.	Comptometer
	Merkham Trading Co., Ltd., Bush House, Aldwych, London, W.C.2.	Monroe
	Muldivo Calculating Machine Co., Ltd., 49 Queen Victoria Street, London, E.C.4.	Barrett
	National Cash Register Co., Ltd., 225 Tottenham Court Road, London, W.1.	National

Type.	Name and Address of Maker (or Agent).	Trade Name.
ADDING MACHINES	Remington Typewriter Co., Ltd., 100 Gracechurch Street, London, E.C.3.	Dalton
	Smith Premier Type- writing Co., Ltd., 4 St. Paul's Churchyard, London, E.C.4.	Dalton
	Underwood Elliott Fisher, Ltd., Bush House, Aldwych, London, W.C.2.	Sundstrand
	Gilbert Wood (Arith- metical Machines) Ltd., 75a Queen Victoria St., London, E.C.4.	Addo Direct Monarch Odhner
	Block & Anderson, Ltd., Brunsviga House, 3 Snow Hill, London, E.C.1.	Archimedes Brunsviga
CALCULATING MACHINES	J. C. Burnham & Co. (Gt. Britain) Ltd., Bush House, Aldwych, London, W.C.2.	Marchant
	Burroughs Adding Machine, Ltd., 136 Regent Street, London, W.1.	Burroughs
	Felt & Tarrant, Ltd., Aldwych House, Aldwych, London, W.C.2.	Comptometer
	Mercedes Sterling Book- keeping Calculating Machines, Ltd., 51-54 Gracechurch St., London, E.C.3.	Mercedes- Melitta Mercedes- Sterling Mercedes- Euclid
	Merkham Trading Co., Ltd., Bush House, Aldwych, London, W.C.2.	Monroe
	Muldivo Calculating Machine Co., Ltd., 49 Queen Victoria St., London, E.C.4.	Muldivo
	George Spicer, Market Place, Brentford, Middlesex.	Tim Unitas Mira
	Gilbert Wood (Arith- metical Machines), Ltd., 75a Queen Victoria St., London, E.C.4.	Hamann Lusid Madas Millionaire Odhner
	Block & Anderson, Ltd., Brunsviga House, 3 Snow Hill, London, E.C.1.	Ormig
	British Tabulating Machine Co., Ltd., Victoria Ho., Vernon Place, Southampton Row, London, W.C.1.	Hollerith
ACCOUNTING MACHINES	Burroughs Adding Machine, Ltd., 136 Regent Street, London, W.1.	Burroughs Moon- Hopkins
	Mercedes Sterling Book- keeping Calculating Machines, Ltd., 51-54 Gracechurch St., London, E.C.3.	Mercedes

Type.	Name and Address of Maker (or Agent).	Trade Name.	Type.	Name and Address of Maker (or Agent)	Trade Name.
ACCOUNTING MACHINES	National Cash Register Co., Ltd., 225 Tottenham Ct. Rd., London, W.1.	National	ADDRESSING MACHINES	Addressall Machine Co., 96 High Holborn, London, W.C.1.	Addressall
	Powers-Samas Accounting Machines, Ltd., Aldwych Ho., Aldwych, London, W.C.2.	Powers Campos		Addressograph- Multigraph, Ltd., 29 Kingsway, London, W.C.2.	Addresso- graph Multigraph
	Remington Typewriter Co., Ltd., 100 Gracechurch Street, London, E.C.3.	Remington		Adrema, Ltd., 136 Regent Street, London, W.1.	Adrema
	Smith Premier Typewriting Co., Ltd., 4 St. Paul's Churchyd., London, E.C.4.	Smith Premier		Hayward Co., 62 Red Lion Street, London, E.C.1.	Addressamite Elliott
CASHIER MACHINES	Underwood Elliott Fisher, Ltd., Bush Ho., Aldwych, London, W.C.2.	Elliott Fisher Sundstrand Underwood	TIME RECORDING CLOCKS	Roneo, Ltd., 5-11 Holborn, London, E.C.1.	Roneo
	Brandt Automatic Cashier Co., Ltd., Washington House, 40-41 Conduit St., London, W.1.	Brandt		Blick Time Recorders, 174 Gray's Inn Rd., [Ltd., London, W.C.1.	Blick
	Burroughs Adding Machine, Ltd., 136 Regent Street, London, W.1.	Burroughs		Gledhill-Brook Time Recorders, Ltd., Empire Works, Huddersfield.	Gledhill- Brook
	National Cash Register Co., Ltd., 225 Tottenham Ct. Rd., London, W.1.	National		International Time Recording Co., Ltd., 112 Strand, London, W.C.2.	International Bundy Dey Time
CHEQUE AND RECEIPT WRITING MACHINES	Burroughs Adding Machine, Ltd., 136 Regent Street, London, W.1.	Burroughs	VISIBLE CARD INDEX SYSTEMS	Magneta Time Co., Ltd., 5 Tothill Street, Westminster, London, S.W.1.	Magneta Stromberg
	National Cash Register Co., Ltd., 225 Tottenham Ct. Rd., London, W.1.	National		National Time Recorder Co., Ltd., 227 & 228 Blackfriars Rd., London, S.E.1.	National
	Remington Typewriter Co., Ltd., 100 Gracechurch St., London, E.C.3.	Remington		Carter-Parratt, Ltd., 16 Victoria Street, London, S.W.1.	Bizada
	Smith Premier Typewriting Co., Ltd., 4 St. Paul's Churchyard, London, E.C.4.	Smith Premier		C. W. Cave & Co., Ltd., 45 Farringdon Road, London, E.C.1.	Cavedex
WAGES PAYING MACHINE	Brandt Automatic Cashier Co., Ltd., Washington Ho., 40-41 Conduit Street, London, W.1.	Brandt		Copeland-Chatterton Co., Ltd., Exchange House, Old Change, London, E.C.4.	Cope-Chat
	Celotex Co. of Great Britain, Ltd., 324-6 Australia House, Strand, London, W.C.2.	Celotex		Index, Ltd., 312 Thames House, Millbank, London, S.W.1.	Harcodex
	H. W. Cullum & Co., Ltd., 50-52 Britannia Street, King's Cross, London, W.C.1.	Acousticos Johns- Manville System		Library Bureau, Ltd., 1 Leadenhall Street, London, E.C.3.	Kardex
	May Acoustics, Ltd., De Burgh Road, Wimbledon, London, S.W.19.	Maycoustic Sabinite Cabot's Quilt		Shannon, Ltd., Imperial House, 15-19 Kingsway, London, W.C.2.	Acme
ACOUSTIC MATERIALS	F. McNeill & Co., Ltd., 52 Russell Square, London, W.C.1.	Slagbestos	Discussion on Professor Annan's and Mr. Ashworth's Papers.		
	Newalls Acoustic Products, Ltd., Asbestos House, Southwark Street, London, S.E.1.	Newalls Asbestos			

Mr. ROLAND DUNKERLEY, F.C.W.A., said Professor Annan had wisely interpreted "Commerce" to cover both large and small businesses. They did not always realise that the great majority of businesses in this country were small businesses. An important thing apt to be overlooked was that in every business, be it large or small, every function in management was carried out. In the small business one man might incorporate several functions, while in the large business specialists in each function might be found necessary. He mentioned those things because they as accountants and specialists might be inclined to regard their function as of paramount importance, whereas the manager or director to whom their advice was offered might be deeply concerned in the

works side, the purchasing side, or the selling side, and might regard accountants as a necessary evil. That being so, they must find out to what extent their advice, as it touched other functions, was being covered by other advisers. That would be necessary, particularly when they came to the interpretation of their information which, after all, should be the aim of their work. The building up of figures and information was only a means to an end. The demand for interpretation, if it was to be effectively answered, postulated speed. Business moved so quickly that to-morrow's problems demanded answers whilst to-day's problems were being tackled. Cost accounting was a running commentary on current events. Weekly, and even daily results were demanded, and Mr. Ashworth in his admirable paper on "Mechanical Accounting" had indicated how that modern demand was being met. In the companies with which he (Mr. Dunkerley) was connected, trading results were prepared weekly and consolidated every four weeks. The figures commenced to reach the co-ordinating office from two to four days after the end of the period. I am sorry that in dealing with periodical statistics, Professor Annan did not bring out the great advantages, from the point of view of comparison, of the institution of the thirteen four-weekly periods, as against the usual method involving calendar months having varying numbers of days. With rapidly changing conditions, comparisons with past results were not enough, and the author of the paper had wisely emphasised the necessity for setting up standards against which actualities could be measured. Professor Annan suggested some types of statistics which might be submitted to managements. In using those statistics, something against which to measure them would be necessary. If standards had not been set up and comparisons with the past were used instead, the accountant would find when discussing them that he would be met by explanations of the differing conditions under the two periods of comparison, and his investigations would be countered by a series of excuses. If standards had been established, then he could ascertain the reasons why those had not been attained, and the resulting discussion would provide the foundations for future action or change of policy. Professor Annan had emphasised that men with accounting training were being asked by the business community to take part in the management of concerns to-day. That had not been done largely until the decline had set in, and the trouble had reflected itself in the financial results. Why wait until then? Business men with accounting training were needed all the time to check "the insidious development of unsatisfactory features" which Professor Annan rightly ascribed as the cause of many failures. The campaign against waste and inefficiency required costing information, by statistics running concurrently with the event, and forecast figures which would indicate the probable result of an action before that action was taken. Action taken as the result of considered information was a justifiable business risk, and most managements would be content to be judged on the result of it. Action taken on somebody's opinion was a gamble, and to-day business provided no margin for gambling. He suggested that the Congress should recommend to schools and colleges the inclusion of business economics and finance in their curricula for the finishing stages of a boy's education, especially where the boy was proposing to take up a profession connected with business. (Cheers.)

Mon. L. POLAK (Holland), in opening the discussion on Mr. Ashworth's paper, said he wished to compliment Mr. Ashworth on the very interesting paper he had read. For more than ten years he had followed with great interest most things which had been published on the subject, and the present was the first time he had found a colleague who saw things in about the same way as he did. There was no difference between the rules which an accountant had to plan when he had to do his work in whatever business it might be, whether the administration had been mechanised or not. Working as auditors, they took no fewer precautions where business machines were used than in a business where they were not, for the

working with the machines gave no more guarantee than the working with pen and ink. The great advantage the machines had brought was that they had opened our eyes to the fact that most offices were not organised on an up-to-date standard. When businesses had grown their book-keeping methods had not grown with them. They were like factories which had developed from a small to a large output. In such factories they found departments or parts of departments which still retained the situation such as it was when the firm began, next door to departments where the most modern equipment had been installed. A new factory for the same output would be built and equipped in quite a different manner. Now-a-days the book-keeping was handled more or less as a factory, that was to say, the manufacturer examined the way in which the output of the office could be organised. That led to the examination of all the work done in the office and to planning, just as in a factory. Without machines they would never have got so far, and in his opinion that was the great advantage. With reference to daily balancing he did not entirely agree with Mr. Ashworth. In large concerns such as banks there might be a necessity to know the daily balances, but in other concerns a daily balance was of no use. It had been introduced by the machine sellers and accepted by officials as a splendid thing, but as a rule nobody looked at it. It was used by machine sellers as propaganda.

Mr. A. S. BANKS, C.P.A. (United States of America), said that on a paper of such great importance as that given by Professor Annan, it was hard for him to express his views, and he would therefore like to use an illustration, perhaps as a warning to practising accountants. In Maine there was a great vocation centre which was very wooded. People ventured there, and they went farther and farther into the woods and some inevitably got lost. Those who did so acted in one of three ways. Some, realising they were lost in those enormous woods considered that their plight was desperate and they ran around until they became exhausted. A second class lay down in despair and did nothing, but a third class, who were wiser, climbed up a tree, took their bearings east and west and some intermediate bearings on some big tree or other, and walked from point to point until they got to the highway and to safety. It seemed to him that Professor Annan's paper told them to be men of vision and to start out and do things before their energies were exhausted. Commerce was calling for the accountant's help. Let them listen to that call and let them answer it and give to commerce what it required, as otherwise commerce would go out and find the services of others who were willing to help. (Applause.)

Mr. S. H. GILLET, F.C.A., said he would like first of all to congratulate Mr. Ashworth on his very able and inspiring paper. Those who had the privilege of knowing him personally—and he numbered himself amongst them—knew that the viewpoint that he had placed before them was the outcome of his own varied practical experience, and that fact must add materially to the value of his remarks. What the business man required from the person who should be his best friend and adviser, namely, his accountant, was practical advice. Speaking as one who had had practical experience in the reorganisation of businesses of varying types during the post-war period, including the mechanisation of their counting houses and the installation of more modern methods of preparing and submitting statistical information for the use of the executives of those businesses, he considered that the paper they were considering was one of the most important on the programme of the Congress. Having made that statement he proposed in a very brief manner to substantiate it. The appeal that the paper made to him as a practising accountant was that it stressed the need of scientific management and it urged the qualified accountant, as one who was trained by specialised education and practical experience, to develop his powers of analysis and organisation to the utmost—to play his part in fulfilling the demands for such management in the business world to-day. That meant that the accountant must bring into play the knowledge that he possessed but

from the accountancy point of view and the auditing point of view, and it was in that dual capacity that he should fit himself so that he might be able to guide both the executive for whom he might be working as financial controller, or the directors with whom he might come into contact as the auditor of the company. Mr. Ashworth rightly stressed the necessity of avoiding "statistical indigestion," and it was there that the trained mind of the practical accountant was so essential. Only recently he had come across in practice a large business with a most efficient system of accounting—with ample statistical information available—that, lacking a trained mind as controller of its finances, failed to perceive from the mass of data supplied to it that it had locked up its liquid capital, with the result that it had had to seek a moratorium from its creditors. The preparation of statistics must have only one object in view, and that was to provide such up-to-date information as was absolutely necessary to enable the executive to manage the business in the most efficient manner, and mechanical accounting must be introduced with a view to assisting in that object. It was, therefore, clear that the accountant as financial controller should assist in the devising of the system that was most applicable to the individual business or group of businesses under review. His first task must be to ascertain the information and statistics required, after which he should be competent to choose the best way and the best machine to carry out those requirements. It must be the aim of those who manufactured the various types of accounting machines to help the accountant and to make the machine fit the system, and not to expect that the system should be made to fit the machine. Most particularly it must not be the aim of the machine manufacturers to sell to each customer the maximum number of machines that he could be persuaded to order, nor to make work for the machines. A business had, in fact, three important divisions: (a) Production, (b) control, (c) selling, and it was up to them to show by their constructive ability that they were capable of making use of the most up-to-date mechanical accounting so that the control might play its proper part in bringing about the financial success of any business in connection with which they were daily connected or frequently consulted. (Cheers.)

Mr. T. A. GILLESPIE, F.L.A.A., said the theoretical side of costing should be more generally studied and advocated by accountants, and brought into the realms of practical utility. Professor Annan had dealt with a very important side of costing, viz, the charging of interest on capital, as to which there were conflicting views. He was inclined to believe that interest should not be charged in arriving at costs, on the ground that all interest was a form of profit, and that no profit should be taken credit for until it had actually been earned, but as there were so many varied classes of manufacture it was difficult to lay down a hard and fast rule, and consequently it had to be determined accordingly. In each case the profit that was earned resulted from the use of all the assets, and surely could not be specifically allocated to any particular part of them. All assets were equally comprised in the capital of the business, and the total net income from their use was the profit of the business. In some concerns the money for the purchase of some of the assets was raised by means of debentures, instead of by means of shares, and interest had to be paid on them. Surely that could not affect the profit made by the business. Was the cost of production greater because the capital was raised in a different way, or did the question answer itself? Debenture interest was equivalent in nature to the rent sometimes incorrectly charged in the books for the use of lands owned by the undertaking, but it was an entirely different thing from the rent that was paid to an outsider for the use of his land. That was a standing charge against the profits of the undertaking—the former was not, and only confused the costings when it was inserted. Thus they were brought back to the main question—should interest be charged at all? It was generally said that theoretically it should not, on the grounds he had already mentioned that all interest was

a form of profit, and it was a well known axiom of accountancy that no profit might be taken credit for until it had actually been earned.

MONS. JAMES POLAK (Holland) said that too many business men saw accounting only as a formality, and at best a necessary evil. But before they blamed their clients for that conception they must first ask whether many accountants were not in default? Did not many accountants speak a language which was not understood by business men, and did not too many of them consider book-keeping as a final aim? In Holland they more and more came to the conclusion that their clients did appreciate the information submitted to them, provided it was given in a concise form and up to date. But they did not care for being wearied with too many figures.

MONS. KAMIL AUGSTEN (Czecho-Slovakia) said he would like to indicate the conditions regarding mechanical accounting in his young national state, the Czechoslovak Republic. Though in none of their most important commercial banks could accountancy be discussed to the full extent in terms of English or American organisations, there yet existed control departments, defined by law, appropriate to their purpose. In particular, checking of the position of debtors had been developed to such an extent that to-day it corresponded to a model of scrutiny. Comprehensive mechanisation in all directions was not yet in operation in all their banks, and even where it existed, entirely different methods of operation were in use. Indeed, their most important establishment, the Zivnostenska banka, which in a few years had attained through efficiency in management a prominent position as a representative of the banking world of their continent, had even to-day not been able to abandon the old and well-tried security of bound books, and its correspondence with customers in eleven European languages was a further hindrance to mechanisation. Order and reliability of its whole apparatus, well recognised for many years, had not conduced to a desire for change in organisation. But their banks could, with regard to their book-keeping and control departments, hold their own in comparison with foreign banking institutions. After collection of detailed information and personal observation of all the leading institutions of their capital city he could state that a daily trial balance was extracted and certified at latest on the following morning, and that customers' accounts and the journal had been collated by the beginning of the next business day. Thus the most essential and important object of a competent organisation was unquestionably attained in all their banking enterprises. The call for mechanisation came to them after the Great War mainly from their neighbour Germany, partly by cheapened payments in inflation marks. In their state the hoped-for results from mechanisation of book-keeping and controls had been only partly attained, and as regards reduction of business costs, scarcely at all. This was explained partly by the fact that in Czecho-Slovakia the substitution of relatively higher qualified officials for cheaper workers could not keep pace with the tempo of mechanisation, mainly from social motives. Besides, the widespread decline in business of all kinds, especially in their industrial districts and above all in branch establishments, hindered full utilisation of the capacity of machines.

Mr. J. SCOTT-MOORE, F.S.A.A., said Mr. Ashworth had dealt with the subject from the respective points of view of both the accountant and the auditor. His (the speaker's) acquaintance with the subject had been a practical one, and mainly from the point of view of the accountant engaged in the endeavour to devise and apply the most economical means of accounting in the fullest possible detail for the expenditure of public funds amounting to some millions a year, in the provision, development, running and maintenance of a large number of public institutions. It was therefore from that point of view only that he could offer a few very brief remarks. The functions of the accountant *qua* accountant might be broadly divided into (a) physical, and (b) psychical. The physical functions he took to cover the operations of collection and arrangement of data, and the psychical, those of interpretation of those data by intellect and

reason. It was obvious that mechanical methods could be applied only to the former category. One factor of the problem was found in the necessity for securing that the system of accounting to which machines were to be applied should be sound, complete, entirely devoid of non-essentials and not liable to variations of process. That aspect was of extreme importance for the reason that every machine had very rigid limitations, and any alterations to a system might involve extensive alterations to or even a complete change of machines. In that fact lay a distinct tendency for machines to assume the mastery. Mr. Ashworth had dealt with that danger. He pointed out that the machine should be applied to the system, and not the reverse. That, he submitted, was, in practice, only capable of application to a certain degree, and so far as the mechanisation of accounting work was possible, both now and in the future, it must always inevitably be limited by the capacity of available machines for the work required. Therefore, where the management of an undertaking desired to instal mechanical means of accountancy, the best course was to submit to selected makers of machines a scheme embodying the accounting system required, and to leave the mechanical experts on their side to devise and submit proposals for carrying them out by the available normal types of machines or by machines specially modified or even designed for the particular purposes. It would almost inevitably be found that both system and machines would require modification before a satisfactory solution was arrived at. The suggestion that the subject of mechanical accounting should take a prominent place in the professional examination syllabus, and that lectures and machine demonstrations should be provided by the various students' societies, was most valuable, and it could not be too strongly urged that it should be implemented by those responsible without delay. Mr. Ashworth claimed that "the use of machinery in accounting requires a higher standard of intelligence and alertness in the machine operators than is usually required in clerks engaged in the ordinary routine of book-keeping." He had very grave doubts, based upon some years of practical experience, as to the truth of that contention. While careful instruction was undoubtedly essential before an operator could be trusted to manipulate a machine, the normal operating was automatic to such an extent that certainly no greater intelligence or alertness were called for than were usually found in the average clerk. It was a fact that the monotony of the work after a time placed a severe strain upon the nervous system, and it was common experience that women operators suffered less from neurotic effects than did men. That strain, however, could hardly be described as "mental." Dr. L. J. Comrie, Superintendent of H.M. Nautical Almanac Office, had recently stated that the faster the process of transcribing a number the more accurate it was. He based that conclusion on the observation that when figures were copied by hand, the mind had time to transpose or confuse them between the time they were read and the time they were written down. With full keyboard machines the sight of a figure produced a reflex action so that the impression of the figure was immediately translated into the action of depressing the right key, and the impression then instantly faded, leaving the mind free to receive the next impression. Hence, an operator who could attain high speed would also attain high accuracy. (Applause.)

Mr. A. CATHELES, C.A., said their profession had grown in importance in this country, not because it had helped the business man to make profits but because it had been forced upon the business community by the requirements of the Government, the Stock Exchange and the Banks. The Government said, "Thou shalt have an auditor," so the business man somewhat reluctantly agreed. It said, "Thou shalt pay income tax according to those most complicated regulations," and the business man sent for the man who had audited his books to help him out of his trouble. The Government and the Stock Exchange Committee said, "Thou shalt have a certificate of profits in thy prospectus," and he sent for his own or someone else's auditor. The bank manager said, "Before lending

you money I want to see audited accounts," and again the auditor was called in. When the bank could not get its money back a practising accountant was given the job of selling up the business so as to recover as much as possible for the bank. In all those functions the accountant undoubtedly rendered valuable service, but in none of them was he actually helping the business man to make profits. Surely, then, it was small wonder that, on the whole, the practising accountant was looked upon by the business man in commerce as a necessary evil. Professor Annan had indicated that the first step that they should urge their clients to take was to institute the preparation of monthly profit and loss accounts. He himself entirely agreed, but those accounts must be efficient accounts, not merely tabulated statements of income and expenditure under the old fashioned headings and in the old fashioned form. They must comprise manufacturing accounts which did show the true cost of the products manufactured during the month, and trading accounts which showed the cost and sales values of the goods sold, and the expense of selling and distributing. And the expenses in those accounts must be shown under appropriate headings so that efficiency of the expenditure on each of the activities of the business might be readily judged, because the business man's interest was in the efficiency of the expenditure and not in its volume. From such monthly accounts it was only a short step to monthly departmental accounts; and cost accounts—which, after all, were only an analysis of departmental accounts—were then just next door. And from sound cost accounts the business man could judge the efficiency of his business. As a profession they had in the past paid a great deal of attention to the volume of expenditure and its authorisation, and none to its efficiency. If they were to render really constructive aid to commerce they must devote a great deal of attention to the institution of accounts which would show the business man the degree of efficiency which he was obtaining from his expenditure and so help him to make profits. They would then no longer be looked upon as necessary evils. (Applause.)

Mr. RICHARD A. WITTY, F.S.A.A., said that most of them were aware that in 1935 there would be an international conference on management, and he thought Mr. Ashworth's paper would be of very great interest then as showing the progress made between the years 1933 and 1935, because in his paper he had given them a very clear map of the advance trenches of the battlefield to come. Therefore, he would like to congratulate Mr. Ashworth on his paper and would like to hail him as a pioneer in the important task of breaking through the ignorance, and it might be the lethargy, and possibly also the conservatism of a large number of those engaged in the accountancy profession, towards that branch of commercial progress. (Applause.)

Mr. C. O. TILEY, A.L.A.A., said commerce could not be carried on without the aid of capital, and therefore anything that accountancy could do to increase the confidence of shareholders in their investments must be an aid to commerce. At the present time the ordinary shareholder lost all control of his capital once it had been invested and, as a rule, the report published with the annual accounts was extremely brief. He believed it would be an aid to commerce if accountants could assist the investor by amplifying their audit reports. If, instead of a bare statement, they made comments upon the progress of the concern and showed the ratio between expenses and sales, and so on, then the investor would have some knowledge of how the business was really progressing. At the present time, beyond the bare accounts, which many shareholders did not understand, they could only get an idea as to the progress made from the chairman's speech, and that was necessarily given with an eye to what it was advisable to tell to the public and the shareholders.

Mr. JOHN MYERS, F.C.A., said accountancy as a profession had many advantages and, so far as his experience went, very few disadvantages. Amongst the advantages which might be placed in the forefront was the fact that a knowledge of accountancy, where the article clerk or

the apprentice had acquired it in an office which could afford all-round experience in general practice, carried with it a training which should prove invaluable in any future career. Not only did it necessarily fit the article clerk for the practice of his profession, but it opened up the long and broad avenues of a commercial career. The first essential in the training of an article clerk was a sound theoretical and practical knowledge of book-keeping and the writing up of complete sets of commercial books from original documents was excellent experience. If he might say so with respect, there appeared to be in the paper to which they had just listened, a little confusion as to the work to be carried out by the accountant as an auditor and that which he might carry out as a consultant. Professor Annan took, and rightly so, a broad view of the duties of the auditor, but he seemed to him to imply that the auditor should, in addition to the duties of the audit, always be on the look-out for improvements in the accountancy system of the company or business with which he was concerned, even to the extent of carrying out a considerable amount of work in doing so, for the purpose of making suggestions as to improvements to the proprietors or directors, who perhaps might very reasonably object to his carrying out such work. It might well be that where an auditor had exceeded his duty in that way he might lay himself open to adverse criticism from a board of directors either for such excess of duty or for the expense it might involve. He had been very interested, as he had no doubt all had been, in hearing the Lecturer's views as to cost accounts and inventories. The examination of cost records, with a view to arriving at the value of work-in-progress in connection with an audit, was essential, but it was an examination which could, in his opinion, be carried to greater lengths than were necessary. Where an efficient system of cost records was kept by a factory, in his opinion it would be sufficient for the auditor to apply such a test or tests of the cost system and records as would satisfy him that the work-in-progress was correctly and honestly taken credit for in the accounts of the company. He submitted that, if the auditor carried that out and was honestly satisfied with the result, he would be absolved in any question which might arise.

Mr. F. J. B. GARDNER, F.C.A., said it was essential to-day that the business man should be taught to make use of his accountant and auditor. He thought it was not far wrong to say that the majority of business men regarded their professional accountant merely as the individual who prepared their annual balance sheet, and if they got into financial difficulties would again come on the scene. The preparation of the annual balance sheet should take a relatively low place in order of importance in the services the professional accountant could render to his client. By the variety of his experience, following on his wide general training, he could, if his client realised how to use him, be of invaluable assistance, and he would have liked to have seen that fact stressed in Professor Annan's paper. The accountant came up against the raw realities of business life and passed beyond the realms of theory. He must be practical, and when Professor Annan touched on education he was dealing with a subject which of itself could form the basis of a vital discussion. He would venture two observations: firstly, during the years of articles the young student must be concerned with the theoretical side. It was when he had passed his final examination that the most important part of his education commenced, and it was there that he felt that as a profession insufficient provision was made for post graduate instruction. The other point he had in mind was that now-a-days Universities and other bodies had started facilities for commerce degrees and business training. There were two dangers they must guard against: one was the overburdening of the young brain with too great a mass of subjects, many of a specialised nature, and the second, allowing theory to outpace practical experience.

Mr. G. T. B. FALL, C.A., said that Professor Annan had discussed, from the point of view of their future value to commerce, the training of new entrants to the profession. He had also mentioned the growing tendency of commerce to seek, for the higher commercial posts,

men trained in the offices of professional accountants. With regard to the former point, he called attention to the greater emphasis placed on costing in the examinations of certain of the British Societies. He (Mr. Fall) would, however, remind them that, at least in this country, one of the main claims in favour of our system of training was that it combined practical with theoretical instruction. He personally rated the former very highly. He particularly referred to instruction in modern commercial organisation and practice, including especially mechanised accounting, costing, budgetary control, statistics, and similar matters. Practical training on those points was, to all intents and purposes, entirely lacking as far as entrants to the profession, in this country at least, were concerned. With regard to men entering commerce as a full-time job, the fact that they were in increasing demand must not be misinterpreted. The larger houses, of the type that employed such men, realised that their training was good up to a point, but sadly lacking beyond that point. Such men were regarded as of value because their professional training had developed imagination, initiative, and an uncircumscribed outlook, and they were thus receptive and productive ground for the specialised instruction that it was still necessary for them to be given, but much of which could have been imparted to them while under articles in the profession. The commercial community obviously had, as far as they were concerned, two needs of considerable importance. Firstly, it required practising men who could, from the outside, diagnose, advise, initiate, reconstruct, and generally assist not only in financial and pure accountancy matters, but also in matters of costing, mechanism, and the other points to which he had referred. Secondly, it needed highly skilled accountants as full-time members of its staff. Those two needs it was endeavouring to fill from the ranks of their profession, but it was finding that the men it got required a considerable amount of preliminary practical experience and instruction. There was, therefore a tendency for outside special societies, whose members received the training the accountant societies did not give, to be formed. He would like to offer a constructive proposal which, he submitted, was perfectly feasible since the solution of their problem was ready to hand in the person of the qualified accountant already in commerce. He would suggest that entrants to the profession should be classified in two categories, namely, those who proposed to continue in the service of professional firms, and those who would later enter commerce. While the former would be given some practical commercial experience, that experience would receive greater prominence in the training of the latter. To that end the system of apprenticeship would have to be entirely changed and the co-operation of qualified accountants in commerce would have to be obtained, so that apprentices could receive a portion of their training under the guidance of such commercial accountants. If such a scheme were instituted not only the goodwill of qualified commercial accountants would have to be enlisted but their status and needs would require careful consideration. They could not be left in their present rather isolated position. He ventured to hope that their profession would recognise that industry wanted their help, if they were properly equipped, but if not would turn elsewhere, and therefore the time had come when an upheaval of their ideas and training must be undertaken if they were to continue to be "an aid to commerce." (Applause.)

Professor G. L. TRANCU IASY (Roumania) said that the subject dealt with by Professor Annan was one of the most interesting in the realm of accountancy. As Professor at the Academy of High Commercial Studies and at the École Supérieure de Commerce in Bucarest he was concerned in the training of accountants. The adviser to a business man must look beyond the activities of a single undertaking. The accountant was the liaison between the business man and the State from the point of view of finance and judicial relations. He would impart to his pupils his sincere appreciation of the valuable work of the Congress. As an Honorary President of the Roumanian Delegation, he was strongly in favour of

the proposal made by the Italian Delegate that the next Congress should be held at Rome.

Mr. A. W. TORY, F.L.A.A., said the client of yesterday was quite satisfied to have an annual balance sheet covering the whole of his activities, and usually he did not know till the balance sheet was made up whether his year's working had been profitable or not. To-day he wanted to know his position from week to week, or at least from month to month, and a proper system of accountancy would reveal it to him. He was not satisfied to feel the main pulse of his creation; he wanted to feel the throb of life in every member. He wanted intelligent forecasts of what the result would be if he lopped off a member or grafted on a new one. He wanted to be able to have a complete picture of the whole creation given to him at short notice whenever he called for it. And all those wants were satisfied by up-to-date accounting. The responsibility of practising accountants towards commerce was great, and the Congress would prove invaluable in focussing that responsibility.

The CHAIRMAN (Mr. C. J. Shiells, C.A.) said that in the short time at his disposal he would confine his remarks to the subject of Education, a theme to which prominence was given throughout the paper. He was glad that was so, because there had lately been a tendency in certain quarters to disparage the value to their students of a University education. That, to his mind, was very regrettable, for whatever their views might be about a University education, he thought few would deny that it had the great virtue of teaching a man to think for himself. In these days of strenuous and increasing competition the value of a broad and independent outlook in the conduct of any profession was incontestable. Particularly was that true of their own profession of accountancy. As Professor Annan pointed out, the range of services offered by the accountant of the future would inevitably be very much wider than it had been in the past. The change, indeed, was already taking place. Not only must the successful accountant be well founded on the theoretical and practical sides of accounting; he must in addition have a comprehensive knowledge of industry in all its phases, and he must be able to advise in the management of a business. He must, in short, be ready and able to make himself conversant with matters outside the strict confines of his own profession if he wished to give the full value of his services. In the past it might perhaps have been sufficient to accept facts and statistics as they were placed before him; now it seemed to him essential, so complicated were modern industrial problems, that he should acquire some practical knowledge of the business to which those facts and statistics were related and so be in a position to check them. The accountant, he was sure they would agree, must take a larger view of his profession, and that applied to his dealings with all business, both great and small. They were forced, then, to recognise the need for Education in the fullest sense of the word, and there again it was that the benefits conferred by the Universities became most apparent. (Applause.)

Professor Annan's Reply.

Professor ANNAN, replying to the discussion, said that it was impossible to touch upon one-half of the points that had been raised by the numerous speakers. The object he had in view in writing the paper had been to bring out the importance of accountancy more particularly to the small business. To show to what importance the small business had come, he might mention that during the last thirteen years, for example, limited liability companies of £50,000 capital and under had been formed to the number of 114,000 against companies with £50,000 and over, of some 8,000 only. He would only touch on two of the points mentioned, which he thought called for emphasis, and the first one was the question of tuition. It had been suggested that there should be some teaching in schools for the preparing of students for the work of accountants. He would like to say with all deference that he thought it would be a good thing to introduce the broad study into schools of finance, economics and business

to take the place of the teaching of book-keeping that was done in schools at the present moment. He might be wrong, but he rather thought that book-keeping at the present time was not being taught properly. He thought, for example, that it was not the fault of the student if he looked upon the balancing of his books at the end of the year as the one thing of paramount importance. That was not his fault; he was taught to do that. He thought the teaching should be more on the lines of the suggestion mentioned in his paper, that the students should be told how to get out figures showing daily, weekly and monthly results. Accountants must try to tell their clients in figures the results of their operations but, as had been said by one of the speakers, accountants sometimes did not give their clients matter that they could understand. Charts were all very well if they had been very carefully prepared, but the important thing was not to put too much into them, as otherwise they lost their effect. Accountants would do well not to supply unnecessary figures or to supply unnecessary charts. It had been said that in his paper the business of advisory accountants had been confused with the business of auditors, but he thought that if the speaker would study his paper carefully he would see that his suggestion was that accountants should do all they could to help their clients. He quite appreciated that statistics should only be produced by the accountant by arrangement with his client, but he did think the offer to do so should come from the accountant. In conclusion, he would like to thank the Chairman for his concluding remarks. The Chairman had stressed the point he (the speaker) had tried to make in his paper, that there should be some sort of research work into accountancy methods. They found research work in all sorts of scientific subjects. Business was a science and accountancy was a vast science, and therefore he would suggest that research work should be commenced. (Applause.)

Mr. Ashworth's Reply.

Mr. ASHWORTH, replying to the discussion on his paper, said that as a matter of fact there was very little for him to reply to. Reference had been made to the question of machinery and the internal check. His experience had been that accounting machinery assisted and developed the internal check and did not place any hindrance upon the various checks being put into operation. He thought anyone who had had any experience with mechanical accounting would agree with him. He was glad that his remark as to the advisability of carefully planning the mechanical work had been stressed. Unless the work was carefully supervised, trouble would ensue and the expense would be considerable. He was grateful to several of the speakers who had confirmed his statement that by mechanical means accounts could be ready for submission within two or three days, but he agreed that that could only be done in the case of smaller businesses. He submitted, too, that that could not be done without machinery. He had been extremely interested in one of the suggestions put forward, namely, the closer association between the accountant and the management. He would like to stress that point and state that at some future date he was certain the accountancy profession would have a further duty added to their long list, namely, the audit of management. Another speaker had referred to the question of accountants being called upon to interpret figures, and in that connection he would like to say that interpretation was the essence of accountancy work. The book-keeper was no use as an accountant necessarily, although they had many people posing as accountants who were nothing more or less than book-keepers. In his opinion accountants must be able to interpret results. One speaker had also referred to the intelligence of the operator. He had found that a greater degree of intelligence was required by the machine operators because they must be able to do something on those rare occasions when things went wrong. As a rule they required a keener grasp of things than the ordinary book-keeper. Reference had also been made to the strain on the nervous system. He had never had a case of collapse, although he did admit that the strain was considerable. He had had cases of

people getting panicky, and he agreed that the use of machines was not conducive to better nervous health. He only hoped that his paper had increased the thought of the accountancy profession on the question of the relationship between the accountant and the management, and he hoped that some would have benefited from his humble efforts. (Applause.)

On Wednesday, July 10th, a Paper was read on

THE CONTROL OF CHARGES AND PROFITS OF STATUTORY UNDERTAKINGS

in (1) Private, or (2) Public Ownership, and the Accounts Relating Thereto, e.g., (a) Railways, (b) Docks and Harbours, (c) Water, (d) Gas, (e) Electricity, and (f) Tramways.

BY

Mr. WILLIAM CASH, F.C.A.

The chair was occupied by Mr. J. McLAREN BIGGAR (President of the London Association of Certified Accountants).

Mr. CASH said:—

In introducing to you this paper, I desire to say at the outset that I have found the subject a very large one; it covers the activities of very many undertakings, most of which are of primary importance to the public at large. Indeed, my principal difficulty has been to condense into reasonable space and without going into unnecessary detail what might be said under each of the heads referred to in the title. It seems to me that the matter may be of interest at an International Congress because, no doubt, similar control of charges and profits must arise in other countries, and I venture to express the hope that accountants from abroad may find an interest in the methods employed in the United Kingdom and may be able also to contribute from their own experience examples of the manner in which similar matters are dealt with in other countries.

Furthermore, from the accountants' point of view, apart from the general interest attached to such matters, questions of accountancy are involved and, moreover, accountants, particularly those who specialise in such matters, are very frequently consulted in proceedings dealing, in the first place, with the authorisation of charges and the limitations of profits, and also again when the question of revision of such charges arises. Also accountants, in the great majority of cases, are concerned as auditors of the undertakings with which I am dealing and, in this capacity, are interested in the powers and control in force in respect of the particular business. There are many cases where companies, domiciled in the United Kingdom, are carrying on business abroad and their operations in foreign countries are regulated and controlled as regards their charges, and such control even extends to the regulation of wages, charges for depreciation, and in some cases, limitation of profits. I have found that the matters I have dealt with are sufficiently lengthy to preclude the inclusion herein of reference to such cases as these; but here again there may be an opportunity for our friends from abroad to give us details of the methods employed.

The accounts of statutory undertakings are designed to give effect to special legislation relating to the control of the charges and profits of such undertakings and are intended to show the working results of the businesses carried on, and, in order to appreciate the position, I would ask you to remember that such control, in most cases, is two-fold; inasmuch as it relates to both charges and also profits. Statutory undertakings are referred to often as quasi monopolies and, as a result, are controlled or regulated by statute, and this, of course, has a political significance because statutory undertakings are given exceptional powers but are placed under statutory obligations. It is necessary that they should be endowed with statutory powers to enable them to fulfil their functions, but, because they are fulfilling duties to the public, limitations as to charges have been devised by the legislature and, in many cases profits have been limited or regulated both by Public and Private Acts of Parliament. Certain of these Acts have been in force for a long period of years. Individual undertakings are incorporated under the provisions of individual Private Acts of Parliament which grant the necessary powers to carry out certain work within specified areas, and in the great majority of cases these particular Private Acts incorporate the provisions of the relative Public Acts. It follows, therefore, that companies which are working under these constitutions have a different status to the ordinary limited company, registered under the Companies Act, 1862, onwards, culminating in the Companies Act of 1929. These statutory undertakings, which are not limited companies in the technical sense, nevertheless, so far as their stockholders are concerned, have a limited liability. The largest and most important group of companies so constituted is that comprising the railway companies, and they, with the gas and water and certain other statutory companies, are governed, as far as their administrative actions are concerned, by the Companies Clauses Act, 1845. There is another class of undertaking clothed with statutory powers which I may describe as public boards. These are not companies but have powers to raise capital and earn profits, but their powers of charge and the allocation of their profits are controlled by the legislature. In this category are included such undertakings as the Metropolitan and other Water Boards, the Port of London and other Dock and Harbour Boards and also joint electricity authorities. A further group of undertakings includes those carried on by municipal corporations and other local authorities and relates to the supply by the owners of such things as water, gas, electric energy, tramways, and in other activities such as markets or, in a few cases, banking.

Historically, the water companies reach back to earlier days than before railways were thought of, and there are a few other companies still surviving with Special Acts relating to such undertakings as toll bridges and, at a somewhat later date—say, 100 years ago—to gas companies. Of still more recent origin are the tramways, and last, but not least important, the electricity undertakings.

On the question of monopoly, it is interesting to consider how, in the passing of time, one industry has followed another and the alleged monopoly has been threatened by competition which at its initiation was not even thought of. For instance, the railway companies ousted and superseded the old stage coach and now they, in their turn, are threatened by road transport which at the present time is making serious inroads into their receipts and profits. No serious rival has been found yet to the water undertakings and water is a prime necessity of life and health under modern conditions; gas has to meet competition by oil and electricity, while even electricity, in certain directions, has to meet the competition of the oil engine and of oil fuel. Tramways have had to fight against the competition of the motor omnibus and are sometimes alluded to as an obsolete system of locomotion, although, with the help of electricity, the tramways have regained much of their usefulness. Again, those of us who look into the future may feel inclined to prophesy, as far as transport is concerned, that air transport may develop into a serious rival. I think it may be interesting in considering these subjects to spend some time on the historical side of these matters and to divide our subject under the various heads enumerated above.

RAILWAYS.

Railways have been described as entirely the creations of statutes. Parliament created them, launched them upon their existence and has regulated and controlled them throughout. In the early days of railways, during the railway boom of 1839, no less than 1,263 companies, representing a gross capital of £563,000,000, deposited plans with the Board of Trade for new lines. The various systems were sanctioned because there was traffic to be served and, having been given the powers which Parliament granted, very large sums of money have been spent by the railways in creating their undertakings, but no person, except on his own private property, may lay down a railway without coming to Parliament who arms the promoters with compulsory powers which are necessary to enable them to expropriate landowners and thus obtain the land necessary for their permanent way. But, at the same time, Parliament limits their authority to carry on business to the actual and direct powers granted and to other business reasonably ancillary thereto, so that a railway company can deal with collected and delivered traffic (C and D); that is to say, they may call for the goods intended to be sent by rail and may deliver them after transit. Parliament has allowed also the railway companies to engage in the ownership of docks and the running of steamers and the working of hotels.

Historically, railway companies were intended to provide a specialised road with rails with the right to the public to use that roadway as a highway, and the railway companies were to be remunerated by a charge or toll and, in the first instance, were not necessarily to provide either locomotives or vehicles, and it is for this curious reason that railway companies' charges are still referred to as "tolls and charges." This fact is seen in the first Act of 1823

(Stockton and Darlington), where there is a provision for the passage of coaches, gigs and landaus on the roadway, the owners of these vehicles being supposed to provide wheels to fit the railways and use them themselves. In the London, Brighton and South Coast Railway Act of 1845 the company were given power to provide their own engines, carriages and trucks and to become carriers. It was apparently contemplated that other vehicles might use the railway subject to regulation as to departure, arrival and speed, arriving on the railway from private sidings. In fact, at that date merchants undertook the receipt and despatch of goods apart altogether from the company.

In the Railway and Canal Traffic Act of 1854 the companies were bound to:—

"Afford all reasonable facilities for the receiving and delivering of traffic upon and from the several railways and canals belonging to or worked by such companies respectively, and for the return of carriages, trucks, boats, and other vehicles, and no such company shall make or give any undue or unreasonable preference to or in favour of any description of traffic, in any respect whatsoever, nor shall any such company, subject to any particular person or company, or any particular description of traffic, to any undue or unreasonable prejudice or disadvantage in any respect whatsoever."

This section of the 1854 Act is of historical importance because it brought into existence what is known as "The undue preference" clause, and the right to the trader to reasonable facilities and the same Act also introduced certain maxima for the charges. These charging powers of the railways were revised under the Railway and Canal Traffic Act of 1888 by a classification of the goods when uniformity in regard to all the railways was introduced. Under the same Act provisions were inserted whereby the charges for carriage varied according to whether the company provided the wagon, or the trader; in the latter case a rebate was allowed from the charge. These charges covered various kinds of services, including collection and delivery, terminal charges and conveyance charges, and orders under the powers of this Act were made for each individual railway company. Charge for detention or demurrage of vehicles was also another authorised charge.

Since the railways were instituted first, the companies have provided stations and places for the reception and despatch of goods, and provisions were made for the protection of the public so that a trader, when quoted or charged a rate, was entitled to call upon the railway company to analyse, or split up, the rate between the charge for carriage and that for terminal services. An amending Act of 1894 followed and contained elaborate provisions with regard to the revision of rates which placed the onus on the company of proving that an increased rate was reasonable, but this provision has now been repealed by the Railways Act of 1921. Parliament in 1913 gave the railway companies power to increase their charges due to increased costs arising from revision

of rates of pay and the Railway Companies Accounts and Returns Act of 1911, which came into force in 1913, settled the present statutory form of accounts applicable to railway companies. In the meanwhile war broke out in 1914, and the Government took over the control of the railway companies under certain powers contained in the Regulation of the Forces Act, 1871, and, under such control, the companies were, in effect, guaranteed the revenue which they had actually earned in 1913, the last complete pre-war year. But after the war it was obvious that the position required special treatment, and the railways were, in effect, reconstituted under the Railways Act of 1921, and that is the Act which governs the position to-day. This brought into force a new principle. Beyond control of maximum charges the companies were previously entitled to earn such profits as they could. Under the 1921 Act they were given standard rates and charges designed to bring in a standardised revenue. A new authority was set up termed the "Railway Rates Tribunal" which proceeded to settle the rates and charges on this basis, and the companies are under obligation to make these charges (sect. 32). But the Act provided a sliding scale; if the companies earn more than the standard revenue, they are allowed only to retain 20 per cent. of such excess and the balance is to be applied to the reduction of rates. The Act carried out also an amalgamation of the various companies so that to-day there are only four main-line companies. The importance of the alteration in charging power lies in the fact that there are no longer maximum charges, but these are now described as standard charges fixed by an independent tribunal.

Unfortunately, whilst it is relatively easy in theory to fix a standard revenue and standard charges, it is not so easy by such a method to ensure that the actual revenue will produce the anticipated result. Whilst the Act contemplated an equilibrium and a possible raising of rates to give the standard revenue, such raising of rates would tend to defeat the object aimed at by discouraging traffic, especially at the present date when such traffic is competitive, nor would the equilibrium be obtained by increasing the charge on one class of traffic to make up for the decrease in another. The question of how far the railway companies shall be allowed to compete on the roads is a matter of urgent consideration to-day. The railway companies are entitled to compete on the sea, but on land the fear has been expressed that, by reason of their financial power, they might crush those engaged in road transport. On the other hand, the present financial state of the railways is a matter of such national importance, and so large a sum of money is invested in the railways that their financial position is one of prime importance. Nominal capital expended by railways in this country is, approximately, £1,300,000,000.

Political difficulty lies in the holding of the balance between the railway companies and their competitors. There is a risk that they might crush the independent hauliers by working the road traffic without profit, to the detriment of the hauliers, and that

a combination between the railway companies and the road interests might jeopardise the interests of the public who require cheap and efficient means for transport.

Before leaving the question of charges, I ought, perhaps, to refer to the matter of exceptional rates, this being one of considerable complication. Prior to the 1921 Act, the companies had upon their rate books exceptional rates running into millions; in fact, it has been said that the exceptions swallowed up the rule! The 1921 Act provided for the continuance of the exceptional rates which at the appointed day the traders desired to have continued, and new exceptional rates were allowed to be granted by the railway companies within certain limits subject to their being reported to the Ministry of Transport, with a limitation on the deduction from the standard rate, and subsequent variations are liable to control by the Rates Tribunal with further provision against cutting rates. As showing the basis on which the standard revenue was to be calculated, I have extracted sect. 58 of the 1921 Act (see Appendix A). I have added also sect. 59, which deals with the review of charges. So much for the control of charges and profits as far as the railway companies are concerned.

Now as to the form of accounts. These are very voluminous and follow the provisions of the 1911 Act, and are expanded by the statistics to be supplied to the Ministry of Transport by the companies as set out in the 1921 Act, Eighth Schedule. The accounts had one particularly interesting feature for the accountant. In the early days of the railway companies, the revenues were built up on the receipts of the period and the expenses included the actual cost of the repairs and renewals which fell within the account year. In the broadest sense, no allowance was made for depreciation. In later years, when the companies undertook the working of steamboats, it being obvious that the renewals of the boats must fall in infrequent and at lengthy periods, the companies concerned provided depreciation funds for ships. Certain of the companies also built up in effect a reserve or depreciation fund by the provision of surplus rolling stock and, in this way, anticipated renewals. Then, at a later date, some of the larger companies, who came to be known as "programme companies," definitely introduced depreciation or renewal funds scientifically calculated, particularly in connection with rolling stock. The 1911 form of accounts recognised this principle, and it will be seen by reference thereto that provisions by way of transfers from or to renewal funds were contemplated. Sums which the companies received by way of compensation for deferred renewals and excessive wear and tear, which accrued during the period of Government control and were paid by the State under the provisions of the 1921 Act, were applied by the companies to the appropriate renewal funds and formed the basis of the considerable sums which the companies to-day hold in such funds.

I do not propose to include here any discussion on the working of these funds, their adequacy or

inadequacy, but when they were constituted the very important question of the adequacy of the funds was discussed, having particularly in mind the question of the added cost of renewal on a post-war basis of assets acquired by a pre-war capital expenditure. The general scope of the accounts is, I think, apparent. A capital account gives details of capital expenditure during the year; a summarised revenue account and appropriation account are supplemented by detailed accounts under each main head of expenditure and separate revenue accounts for ancillary businesses, and, finally, a balance sheet. Statistical information is afforded as to the principal classes of rolling stock and ships owned by the company, mileage of the permanent way, train mileage, permanent-way repairs, renewals and repairs of locomotives, carriages and wagons, and, finally, a comparative statement of results in preceding years. The railway companies have been relieved of the necessity of furnishing this account in full to all their shareholders, and a summarised statement, comprising the particulars appearing in the full statements of accounts as to the revenue account and appropriation account with the balance sheet and certain of the statistical information, is today sent to the proprietors with an indication that a full statement of accounts can be had on application to the company.

The statistics required under the 1921 Act are very elaborate. To deal with them in detail would take too long. Many of them have to be supplied monthly. They include freight receipts in tons and ton units, parcels and miscellaneous receipts and quantities, train and engine miles with consumption of coal, electricity and oil by locomotives, &c.

The accountancy involved in the "disintegration of exceptional rates" (1921 Act, sect. 40) on the ascertainment of a terminal charge is an elaborate matter. I might instance a case which allows in the cost for interest on capital, maintenance, and working cost of a signal box used for a particular traffic on the basis of the proportionate number of lever movements in the box attributable to the traffic in question.

WATER.

Historically, I suppose, one of the earliest public supplies in this country was inaugurated by the New River Company which was incorporated by Letters Patent in 1619 with the title of "The Governor and Company of the New River brought from Chadwell and Amwell to London." The New River Company is still in existence, but as a limited company registered on July 1st, 1905, pursuant to an Act of Parliament in 1904. The company, of course, has been deprived of its water undertaking, which was transferred to the Metropolitan Water Board as from July 25th, 1904, and the company is now really a land and property company, owning estates, houses and property not connected with water supply. There is also the case of the supply afforded to-day in Plymouth and owned by the Plymouth Corporation which still uses the water from Drake's Leat, the supply having been inaugurated by Sir Francis Drake and authorised under the Plymouth Water Act of 1585. No doubt,

there may be other similar enterprises, but these two will suffice for our purpose.

The earliest supply of water in London was provided by an engineer of the name of Peter Morrys, who, in 1582, obtained permission from the Corporation to pump water from the Thames into the City by means of water wheels placed in the first arch of London Bridge and driven by the tide. It is said:—

"Before this time no such thing was known in England as this raising of water. It was done by a mill, and was the first waterwork that was made use of to supply the Citie of London with Thames water; and this water-mill furnished the neighbouring parts of the Citie as far as Gracechurch Street." (*Stowe.*)

This system, inaugurated under a 500 years' lease from the Corporation, was extended as time went on until five arches of the bridge were occupied with waterwheels and supplied the City for 240 years and the borough for 50. This undertaking came into the hands of the New River Company in 1822, and, subsequently, into the ownership of the Southwark and Vauxhall Water Company. Prior to this public supply Londoners were dependent on private shallow wells or polluted brooks or were supplied with water drawn from the river by men known as "Cobs" who carried water round to the houses in "tynes," or buckets, at a charge of 1d. or $\frac{1}{4}$ d. per bucket. They formed a sort of guild and resented any interference with their privileges.

The New River Company was the work of private enterprise. The City Corporation declined to undertake the work for which they had obtained powers, and thus recorded their decision:—

"The Maior, Comaltie and Citizens considering the great charge and expense of the saide worke and doubtinge much losse might befall upon the Chamber of the said Citie, in case worke should not succede well and prove beneficall, did thereupon forbear at their common charge to undertake the saide worke soe as the same lay long neglected and unlike by them to be p'formed."

Sir Hugh Myddleton came forward and undertook the work himself with:

"divers persons of quality who were willing to adventure and joyne with him in contribucion towards the charge of saide worke."

That was the origin of the first London water company. The New River water was brought to London in 1613 and was received with a great flourish of trumpets as a public benefaction. It was distributed in pipes over a wide area and laid on in the houses, the use of the service pipe and taps being granted on lease for an annual payment. Under its constitution half the profits were to go to King James, who had borne half the expense of construction; but, as losses ensued instead of profits, in the year 1631 Charles I disposed of his share to Sir Hugh Myddleton for the consideration of £500 a year to be paid in perpetuity to the Crown under the name of "The King's Clogg." The remaining half of the waterworks consisted of

36 shares, of which Sir Hugh Myddleton held 13. The important point to observe is that no public authority in the early days did anything to supply the needs of the public. Many of the early water companies paid no dividends for years, and none of them made much profit at first, and this should be remembered when sums paid in later years for water undertakings are referred to.

The next London company in order of date was the East London Company, established in 1681, and the Chelsea Company in 1723. It would take too long here to deal with the history of all the London companies and with their efforts to improve the quality of the Thames water by storage and filtration. Of the early works of the New River Company, the "Waterhouse," erected about 1613 and restored in 1872, still exists and contains the old oak room which has been built in to the existing offices and to-day forms part of the offices of the Metropolitan Water Board and is situated on the site of the New Riverhead in Rosebery Avenue, Holborn.

In London areas had been devised for the eight water companies which were in existence when their undertakings were taken over by the Metropolitan Water Board under the Act of 1902 in the year 1904. Their dividends were limited by Act of Parliament to 10 per cent., but, of course, this applied only to the ordinary capital; any excess profits had to be applied to the reduction of rates and their charges for water were limited. In the early days of the New River Company the charge for domestic water laid on to a house was calculated by the number of chimneys in the house, which was a rough guide to the size of the dwelling. No doubt, the companies were prosperous undertakings; in fact, the New River Company, whose capital in 1852 was deemed to be £1,519,958, received in the arbitration in 1904 £8,534,000 in Metropolitan Water "B" 3 per cent. Stock and, in addition, the Board took over debenture stock amounting to £1,258,000 and the company retained the landed estates. A King's share, which then represented £2,844 a year, realised in 1899 £120,000. The total consideration money to the eight companies, paid by the Metropolitan Water Board under the 1902 Act, amounted to £42,854,128, which was paid by the issue of 3 per cent. stock, this irrespective of further outlay in connection with the transfer, compensation, stamp duty, &c.

Water companies, generally, in obtaining Parliamentary authority acquire compulsory powers, if necessary (except where they proceed by provisional order), to take land and water rights; power to break up the streets, under superintendence, for the laying and renewing of their pipes; power to charge rates not exceeding the authorised maximum, based on the rateable value of property, and power to require payment of the same quarterly in advance; and power to recover such rates by the summary method of distraint with a further power of cutting off the supply; and the company's water supply is protected by penalties against the fouling, waste or misuse of it. On the other hand, the company may be compelled, under the conditions provided, to

afford a supply of pure and wholesome water, unless prevented by frost, unusual drought or other unavoidable cause or accident; and their profits are restricted to 10 per cent. on their ordinary or original capital. In many cases the supply is required to be constant.

Existing water companies are protected against local authorities intending to give supplies under the Public Health Act of 1875 so long as such companies are able and willing to supply water proper and sufficient for all reasonable purposes so that, under the provisions quoted, the company has a monopoly. Charges of each individual company vary, it being the practice of Parliament to allow such charges as will give a reasonable return on the capital involved. Under the Gas and Water Works Facilities Acts, 1870 and 1873, Provisional Orders, subject to confirmation of Parliament, may be obtained by any companies or person. Companies are allowed to charge for water supplied for trade purposes according to the quantity supplied. In many cases there is a limit on the quantity which may be required by any individual consumer. The law has established the fact that there is no property in underground percolating water, but a company, when authorised to sink a well, may find themselves saddled with clauses whereby within a stated radius of such well, compensation may be payable to any person injuriously affected. There have been numerous decisions as to what is a domestic supply, a matter which it is not necessary to discuss here.

Water companies have, in many instances, been transferred by purchase to local authorities but, as a general rule, Parliament will not compel a purchase and transfer unless there is real ground for complaint against the existing water company.

So far as financial provisions are concerned, these are contained mainly in the Waterworks Clauses Act of 1847. Sect. 75 provides that the profits to be divided shall not exceed the prescribed rate or, where no rate is prescribed, shall not exceed 10 per cent. on the paid-up capital unless a larger dividend be at any time necessary to make up the deficiency of any previous dividend which shall have fallen short of the said yearly rate. This, in effect, enables a company to pay "back dividends," and many companies who, in years gone by, paid little or no return to their shareholders are, in this manner, recouped for the lean period which they, as pioneers, have encountered.

Additional capital was fixed generally at 7 per cent. for ordinary capital and 5 per cent. for preference capital, but this additional capital, under the private Acts in compliance with standing Orders of Parliament, has to be offered by public auction or tender at the best price which can be obtained.

The Waterworks Clauses Act, sect. 76, is important, and I quote it verbatim:—

"If the clear profits of the undertaking in any year amount to a larger sum than is sufficient, after making up the deficiency in the dividends of any previous year as aforesaid, to make a dividend at the prescribed rate, the excess beyond the sum

necessary for such purpose shall from time to time be invested in Government or other securities and the dividends and interest arising from such securities shall also be invested in the same or like securities, in order that the same may accumulate at compound interest until the fund so formed amounts to the prescribed sum, or, if no sum be prescribed, to a sum equal to one-tenth part of the nominal capital of the undertakers, which sum shall form a reserved fund to answer any deficiency which may at any time happen in the amount of divisible profits or to meet any extraordinary claim or demand which may at any time arise against the undertakers; and, if such fund be at any time reduced, it may thereafter be again restored to the said sum and so from time to time as often as such reduction shall happen."

I should add that by the next section money cannot be taken from the fund for the purpose of meeting an extraordinary claim unless it is certified first by two Justices.

Sect. 78 is as follows:—

"When such fund shall, by accumulation or otherwise, amount to the prescribed sum or one-tenth part of the nominal capital, as the case may be, the interest and dividends thereon shall no longer be invested, but shall be applied to any of the general purposes of the undertaking to which the profits thereof are applicable."

Under sect. 79 a deficiency in profits may be taken from the reserve fund. Under sect. 80, when the reserve fund is full, all surplus profits must be applied to the reduction in the water charges. Under the same Act is a requirement to make up an annual statement of accounts which has to be certified by the auditors and a copy sent to the Clerk of the Peace of the County in which the waterworks are situated. No form of accounts is prescribed, but the practice amongst water companies has produced a considerable amount of uniformity in a revenue account so that the expenditure side is generally set out under the following heads:—

- Maintenance of Works.
- Pumping.
- Filtration.
- Purchase of Water.
- Maintenance of Mains, Meters, &c.
- Salaries of Engineers.
- Rent, Wayleaves.
- Rates and Taxes.
- Management and Collection.
- Law and Parliamentary Charges.

On the other side is shown the income from water and other subsidiary accounts. The balance is transferred to a profit and loss or final appropriation account, the balance sheet being in the usual form introducing the balance of capital raised and expended, the floating assets and the liabilities under the appropriate heads.

It may be of interest to refer to the case of the Metropolitan Water Board as an example of a board as distinguished from a company. Under the

provisions of the Metropolitan Water Act, 1902, the above Board took over the undertakings of the eight water companies and the transfer took place in 1904. The charging powers of the companies under the Metropolitan Water Board (Charges) Act, 1907, were continued for a time and then unified for the whole area of supply on the basis of a charge not exceeding 5 per cent. on the rateable value for water for domestic purposes and a charge per 1,000 gallons for water supplied for trade purposes, the Board having the right to call upon constituent bodies to make good any deficiency in revenue, including the charge for interest on loans and debentures and sinking fund. In fact, a deficiency occurred during every year of the Board's existence until a further Act in 1921 readjusted the charges so that the 5 per cent. became at such rate per annum as the Board shall from time to time fix not exceeding 10 per cent. The loan period granted by the 1902 Act for the purchase price was the exceptionally long one of 100 years (with suspension of the sinking fund for 20 years), and for other subsequent capital 60 years or less. The revenue of the Board has to be estimated each year and the rate charged is to be fixed so as to balance the account. In effect, the Board are precluded from making surplus profits.

GAS.

Here again, as with water, Parliamentary authority for the supply of gas is obtained by special Act or by a Provisional Order, afterwards confirmed by a Public Act, or by an Order made by the Board of Trade. Parliamentary authority having been obtained, certain consequences follow: the company obtain power to construct their works and, if need be, to take defined land compulsorily, but only if authorised by a Special Act; they have certain limits of supply assigned to them; they obtain power to break up the public streets for laying and repairing mains and pipes. They obtain power to charge a certain price and are given summary remedies for recovering that price by cutting off the supply and by warrant of distress as well as by action in any Court of competent jurisdiction. On the other hand, the company come under many obligations and restrictions. They are restricted to definite lands for the manufacture and storage of gas; they may be compelled by consumers to afford them, under certain conditions, a supply of gas, and such gas must be of the prescribed thermal value, pressure and purity; they submit to a statutory limit of divisible profits and, in certain events, to the auction clauses (afterwards referred to) when new capital is authorised to be raised.

A gas company is, therefore, also a regulated monopoly in the sense that no other supplier of gas can compete with it, but, of course, under modern practice, the competition by electricity and oil has to be met. There are cases of companies supplying both gas and water, but it is usual in these cases to require the accounts of each undertaking to be kept separately. Under the Gas Works Clauses Act of 1847, sect. 30, the profits to be divided are not to

exceed the prescribed rate or, where no rate is prescribed, it is not to exceed 10 per cent. unless a larger dividend be at any time necessary to make up the deficiency of any previous dividend which shall have fallen short of the said yearly rate, and there are similar provisions as in the case of water as to the creation of a reserve fund and a reduction of charge when the said fund is full. Similar clauses are inserted usually in regard to the raising of new capital as in the case of water. The practice under the Private Acts since 1874 has given additional funds, such as an insurance fund to meet extraordinary claims, a reserve fund to be limited to the purpose of making up dividends and, where the sliding scale of dividend has been introduced, the companies have been allowed also to form a special purposes fund for renewals, while the old reserve fund can be added to only out of profits authorised for distribution but not divided.

The first gas company formed in London was the Gas Light and Coke Company, which was incorporated by Royal Charter dated April 30th, 1812, on the terms of an Act of Parliament passed three years previously, for the purpose of lighting the cities of London and Westminster and the Borough of Southwark. This was followed by the establishment of five other companies—the City of London Gas Light and Coke Company, the Imperial Gas Light and Coke Company, the Ratcliff Gas Light and Coke Company, the Phoenix Gas Light and Coke Company, and the Independent Gas Light and Coke Company—which were, severally, incorporated by Act of Parliament in the years 1816, 1820, 1823, 1824 and 1829 respectively.

At one time there was competition between the various London companies, of which there were thirteen, but these have been reduced now to four, viz: the Gas Light and Coke Company, the South Metropolitan Gas Company, the Wandsworth Gas Company, and the Commercial Gas Company. The first two companies celebrated their centenaries in 1912 and 1924 respectively and are undertakings of considerable magnitude. The first named has an issued capital, including loan capital and premiums, of £40,000,000, of which £18,911,000 is sliding scale capital; employs some 17,000 people and supplies gas over an area which extends from Staines to Southend. It is the largest gas undertaking in the world, and its annual sale of gas amounts to 40,000 million cubic feet, and of its 1,370,000 consumers, 760,000 are supplied on the penny-in-the-slot principle. There are many gas undertakings in the hands of municipal authorities outside London, e.g., Birmingham, Manchester, &c., but there are to-day some 430 statutory company undertakings with a total issued capital, including loan capital, of approximately £123,000,000.

About 1875 the sliding scale was introduced on the following basis:—

- (1) That the initial price and quantity of gas shall be fairly fixed, having regard both to the immediate existing interests of the companies

and the consumers and to the prospects of both under the new system.

- (2) That the price and dividend shall vary in certain fixed proportions without limit; so that, on the one hand, the price may be raised without limit as the dividend diminishes, and so that the dividend may be increased without limit as the price diminishes.

The effect of this was to bring the company and consumer into partnership. This principle has been extended far beyond London and has, undoubtedly, had most beneficial results both to the consumers and to the companies and, coupled with the auction clauses, has resulted in capital being raised on most advantageous terms. The auction clauses in their application required new capital to be issued by auction or tender to the public so that such new capital was obtained on the most favourable terms with the result that the charge for remuneration of capital was as low as possible. In more recent years this provision has, in some cases, been relaxed subject to certain control by the Board of Trade or by bringing the price of issue into relation with current market quotations.

The initial or standard price for gas having been fixed, the relation between price and dividend was that for every reduction in the price of 1d. per 1,000 cubic feet the company was authorised to increase the dividend authorised by 5s. (one-quarter) per cent. on the original or sliding scale capital of 10 per cent., and *vice versa* for every increase in the price of gas the dividend had to be correspondingly reduced, relative proportions being applied to capital bearing a smaller standard rate of dividend. This method was intended to reward the gas companies for good work and economies effected and, at the same time, with this incentive, secure to the consumers a share of any advantages that might accrue to the business. The proportion of the benefit divisible on an approximate basis is five-sixths to the consumers and one-sixth to the company.

The calculation of the dividend, so far as the price of gas is concerned, is determined by the highest price of gas charged to the consumer during the current half year or year, and this took no account of discounts allowed or lower prices in force to large consumers. This part of the system was hardly fair to the shareholders and, commencing in 1920, a new method of calculation has been approved by Parliament which compares the actual revenue receipts for gas with what might have been charged at the "basic price" or standard rate, the difference being termed the "consumers' benefit"; that is, the reduction in charge which the consumers have enjoyed already. The companies are then permitted to distribute to their shareholders, by way of additional dividend, a sum of money equal to one-sixth of the consumers' benefit and, at the same time, another equal sum to their employees. This is a statutory right of the workpeople, subject, of course, to there being profits available to provide for both these additional sums. The basic prices fixed since 1920 for about twenty companies, representing about 50 per

cent. of the gas sold by companies, have had regard to the conditions then existing, but before this, during the war years, public utility undertakings found themselves in difficulties by reason of the great increase in wages and the high cost of coal and other materials. Unlike an ordinary trader or manufacturer, they were unable to increase the price of their commodities to cover them, or, if they could do so, they were penalised in their dividends for no fault of their own. Accordingly, Parliament intervened and, in the first instance, passed the Statutory Undertakings (Temporary Increase of Charges) Act, 1918, whereby some measure of financial relief was granted. This Act has expired now. This was but poor and inadequate justice, and in 1920 was passed the Gas Regulation Act, 1920, subsequently modified by the Gas Undertakings Act, 1929. Under the 1920 statute the Board of Trade was authorised by Order to revise the provisions as to charges in all Private Acts and so to raise the maximum or standard charge to cover the extra cost over pre-war figures to the extent of the increased costs beyond the control of the company. With this was linked the thermal method of charging for gas and provisions as to revision of prices, penalties, &c. The Act created also a new and simplified procedure for obtaining statutory powers by special order granted by the Board of Trade. Some 500 undertakings under these provisions obtained a standard, or maximum, price, when costs were on a high post-war level, and but few of these subsequently had such prices reduced by an amending order. Under the 1920 Act certain amending orders were made granting undertakers a higher standard price for a temporary period during the coal strike of 1926. This Act contains also provisions for subsequent revision downwards at the instance of the Local Authorities in the event of costs falling, but reserving for the benefit of the undertakers any economies effected by them in the meanwhile. Similar provisions were enacted also for the benefit of the water undertakings in the Water Undertakings (Modification of Charges) Act, 1921, and for tramways under the Tramways (Temporary Increase of Charges) Act, 1920, the administration being respectively in the hands of the Ministry of Health and the Ministry of Transport. So far as gas is concerned, the working of the 1920 Act has been modified slightly and extended by the Gas Undertakings Act, 1929, and, thereunder, reserve and special purposes funds may be enlarged.

By the Gas Regulation Act, 1920, all gas undertakings have to furnish to the Board of Trade an annual account and such statistics and returns as the Board may require. This provision is intended to supersede the provisions of the Gas Works Clauses Act, 1871, under which a form of statutory accounts was laid down, although the Board of Trade have not, in fact, prescribed any new form. Statistics are in two parts: one relating to the details of the manufacture and the supply of gas and the other relating to finance and prices. The accounts comprise the following:—

- (A) Statement as to capital authorised, issued and to be issued.

- (B) Statement as to Loan Capital issued and to be issued.
(C) Capital account showing capital expenditure and capital raised, the balance being carried to the balance sheet.
(D) Revenue account. Expenditure grouped with subsidiary items under:—

Expenditure: (1) Manufacture.
(2) Distribution expenses.
(3) Rates.
(4) Administration.
(5) Sundry itemised expenses such as law costs.

Receipts: (1) Sale of gas—showing quantity sold.
(2) Rents of meters, stoves, &c.
(3) Residuals.
(4) Sundries.

The balance is transferred to:—

- (E) Profit and loss (net revenue) account:—

Debit: Debenture and other interest.
Transfers to reserve.
Interim dividend.

Credit: Balance from last account.
Balance from revenue account.
Interest.

The balance (profit available) as per balance sheet.

Balance Sheet.

Debit: Balance from C and E.
Reserve and other funds.
Interest due or accrued.
Creditors.

Credit: Balance from C, if overspent.
Investments of funds.
Stocks.
Debtors.
Cash.

- (F) is statistical with figures in tons of coal stocks and coal carbonised and gallons of oil used.

- (G) is similar with figures relating to residuals, i.e., coke, tar, sulphate of ammonia. From these accounts costs per 1,000 cubic feet or per therm sold are invariably prepared and the working of the company can be criticised.

ELECTRICITY.

There are a considerable number of Acts dealing with the supply of electricity, beginning with the Electric Lighting Act, 1882, and ending with the Electric (Supply) Act, 1926. These apply only to bodies or persons who are authorised to supply electricity within any area by licence or, since 1910, by a special order made by the Electricity Commissioners or by a Special Act of Parliament. Since 1909 no persons can commence to supply in any area in which any other local authority, company, &c., are duly authorised to supply, so as to interfere with any such company (e.g., railway companies) who were

supplying prior to that date. It follows, therefore, that authorised undertakers have a monopoly of supply within their own area. It would be outside the scope of this paper to deal in detail with all this large mass of legislation and variations in the method of authorising supplies now in force nor do I propose to deal with the powers of the Electricity Commissioners which are of considerable extent. As far as companies are concerned, their capital is limited only by their Memorandum of Association or incorporating Act. Unlike most statutory concerns, electricity companies are subject to purchase by local authorities under terms contained in the Electric Lighting Act, 1888.

Companies (subject to certain protective provisions) must give a supply throughout the specified number of streets in the Order. The method of charge and maximum prices is prescribed, and the charge must be either by the actual amount of electricity supplied, the quantity contained in the supply, or some other method approved by the Ministry of Transport. The prices to be charged are not to exceed those stated in the Order, and these maxima vary between summer and winter quarters. As a rule, these maxima are inoperative, having been fixed at a high rate. Prices and the method of charge may be varied by the Ministry of Transport after three years. Temporary relief as to charges is given by the Statutory Undertakings (Temporary Increase of Charges) Act, 1918, and about 150 applications for revision were dealt with by the Ministry of Transport (this Statute has now expired). Undertakers must not show any undue preference to any consumer. The Electricity Supply Acts contain no provision limiting profits of undertakers who are not local authorities and it is not the practice to insert in such provisions any special terms, but as and when bulk supplies are given from the national grid the Electricity Commissioners can impose a relationship between price and dividend (1926 Act, sect. 32). Annual accounts have to be kept and made up in a prescribed form, and copies must be available for sale.

Something must be said, however, about the electric power companies. There are some 76 special Private Acts of Parliament which are special Acts within the Electric Lighting (Clauses) Act, 1899, relating to this class of undertaking, and they have this peculiarity: the maximum prices chargeable and the maximum dividend payable by the company are fixed subject to a sliding scale. A power company is incorporated almost always by the Act which creates it. Prices are fixed also by the Act, subject to periodical revision by the Ministry of Transport; the revision period is generally ten years and the dividend payable is limited (generally) to 8 per cent. on the following slide:—

For every 1½ per cent. by which the prices actually charged by the company throughout their area in any year are below the maximum prices fixed by the Act, the dividend may be increased by 5s. per cent., and for every 5s. per cent. by which the dividend in any year exceeds the rate of dividend fixed by the Act,

the prices charged by the company for the next year must be 1½ per cent. below the maximum prices fixed by the Act. The company may make good any deficiency in any previous dividend.

Special legislation has been passed to deal with the companies supplying electricity in the County of London. Rights to purchase these undertakings were given up in 1925 by agreement with the local authorities and the companies undertakings were left to them until 1971. Meanwhile, they were granted standard prices based on the then existing costs and dividends by the London Electricity Acts, Nos. 1 and 2, of 1925, subject to the revision of these prices in 1931 when the dividends were to be reduced. These standard prices were divided into four categories of supplies, viz:—

- (1) Railway and traction,
- (2) Bulk,
- (3) Street lighting,
- (4) Private consumers,

and, within each of these sections, the company was to share in the excess profits for augmentation of dividend, the remainder of any economies or any increasing profits being applied to the reduction in price subject to the right to create limited reserves. From 1925 onwards the companies were to set aside sinking funds for the redemption of capital, calculated so that in 1971 the whole of the undertaking will pass to the London and Home Counties Joint Electricity Authority, the same authority having to pay for stocks, stores and debts taken over, and a further sum for assets acquired during the latter part of the term not fully provided for by the sinking fund. In this way the company would be repaid the whole of their capital then outstanding.

The companies were required to issue new capital in the most advantageous form and on the best terms obtainable. They were prohibited also from paying back dividends and were allowed to set up a contingency fund not exceeding ½ per cent. per annum on the capital outstanding as a charge with a further optional ½ per cent. payable out of divisible profits. Standard prices are subject to revision at any time at intervals of three years if special circumstances then ruling justify such revision.

The general position of the supply of electricity has been considerably modified by the Electricity (Supply) Act, 1926, under which a Central Electricity Board was constituted, charged with the duty of supplying electricity to authorised undertakers. The Board have to prepare schemes relating to specified areas, determining generating stations to be selected at which electricity shall be generated for the purposes of the Board, and also for providing main transmission lines. They have power to determine tariffs for electricity supplied directly by the Board to authorised undertakers with a limitation of price governed by the cost which the owners of existing stations would have incurred, had the Act not been passed, in themselves generating the like quantity of electricity.

They have also power to alter the frequency employed so as to effect a standardisation of frequency

with a repayment of the cost to the authorised undertaking for any expenses incurred in carrying such requirements into effect, and for such expenses the Board have power to borrow money to be repaid by the Electricity Commissioners, and the sums required to meet interest, together with the sinking fund in respect of money borrowed for this purpose, the Commissioners, in their turn, have the right to recover from the industry.

The Act gave the Board the power to borrow for their general capital expenditure the sum of £33,500,000 and to capitalise the interest for five years with power to the Treasury to guarantee the loans to the Board. Under the same Act, where any company, being an authorised undertaking and not a power company, receive a supply of electricity from the Board, the Electricity Commissioners may, having regard to any change in the cost of electricity attributable to the Act, by a special order, make provision as to the relation between the charges to be made for electricity and the dividends to be paid by the company. This is a very important provision and may control profits to an extent not previously possible. From this provision the London companies are excluded.

The Act deals also with the question of compulsory purchase of undertakings in future orders, and authorises the institution of two-part tariffs and the prices to be charged for the sale of fittings; but I have said enough in this respect to cover, generally, the control and limitations placed on undertakers by this particular Act.

TRAMWAYS.

Tramways are governed by the Tramways Act of 1870, and are authorised whether in the hands of a public authority or a company. Under this Act the Board of Trade, and now the Ministry of Transport, have power to grant orders to a local authority, or a company with the consent of the local authority, for the construction of a tramway subject to the approval of Parliament. They have power also to revoke or extend any provisional order. Of course, such an undertaking may be authorised by Private Act of Parliament. The Act contains powers with regard to the purchase of an undertaking by a local authority after a period of 21 years, and promoters were, thereupon, bound to sell the undertaking upon the terms of the then value (exclusive of any allowance for past or future profits or any compensation for compulsory sale) all the tramway, all lands, buildings, works and plant suitable to and used by them for purposes of their undertaking. The tolls are fixed by the Special Act or Order as maxima. The revision of tramway fares and stages is governed by the Tramways (Temporary Increase of Charges) Act, 1920, which is still in force, the determination of these matters being in the hands of the Ministry of Transport.

DOCKS AND HARBOURS.

As an illustration of this class of undertaking and its extent I may cite the Port of London Authority. The Port of London Authority are a public board formed to acquire in 1909 the undertakings of the three London Dock Companies at an initial cost of

some £22,000,000. Their total capital issues, including stocks and other obligations, are now, approximately, £40,000,000. The authority consist of 29 members, 18 elected and 10 appointed by various interests, and a chairman. Their powers of charge are regulated by a number of Acts and their revenues have to be applied in payment of their working expenses, interest on stock and loans and sinking funds, and to a reserve fund not to exceed £2,000,000. There are various other funds.

As regards their powers of charge, these relate to four matters, being their main sources of revenue:—

- (1) Port rates on goods.
- (2) River duties on tonnage and tolls.
- (3) Rates for services to goods.
- (4) Rates on vessels using the docks.

(1) As regards the port rates, these are specified in their 1932 Act, and are maximum rates subject to revision downwards by the Minister of Transport upon application to him. Within the maxima, the authority can vary the rates, subject to one provision under their 1920 Act, under which port rates charged on goods exported to parts beyond the seas must not exceed one-half of the port rates for the time being actually charged on similar goods imported from parts beyond the seas, and the port rates on goods imported coastwise must not exceed one-half of the port rates for the time being actually charged on similar goods imported from parts beyond the seas; the port rates on goods exported coastwise must not exceed one-half the port rates for the time being actually charged on similar goods either imported coastwise or exported to parts beyond the seas, whichever rate may be the lower.

The provisions as regards goods imported and exported coastwise do not apply to coal, patent fuel, coke, &c., in respect of which the port rates on exports coastwise must not exceed one-half of the port rates for the time being actually charged on these goods, respectively, imported coastwise.

(2) River duties of tonnage and tolls.—These are maximum charges.

(3) Rates for service to goods.

The authority have power to take rates on, practically, every service which can be rendered by them without a maxima (except as regards a landing rate which applies to imports), such as craneage, piling, housing, weighing, coopering, sampling, &c. These rates must be only such reasonable rates as the port authority shall, from time to time, appoint and no question of any maxima in respect of these services arises. Maximum charges, however, are laid down in respect of the landing rate, which applies to imports; wharfage and portage rates, which apply to exports. Here again, the maximum rates are subject to revision by the Minister of Transport.

(4) Rates on vessels using the docks.

These rates are laid down under the 1923 Act with provisions as regards revision by the Minister of Transport. Charges for rents of lands and premises and rents paid by shipowners for fixed berths are not

subject to any control. There are certain other charges which are not controlled by Statute.

There are a number of other Boards or River Commissions dealing with the various ports around the coast. Their charges are all regulated by their own Special Acts, but are subject to amendment under the Harbour and Docks (Temporary Increase of Charges) Act, 1920, which Act had a limited life, but has been continued from time to time by Expiring Laws Continuance Acts.

THE LONDON PASSENGER TRANSPORT ACT.

The year 1933 has seen the passing of the above Act which will create a new Board to take over the Underground Railways in London, the omnibuses, tramways and certain other transport interests, and also the powers to run steamboats on the Thames transferred from the London County Council. The Act provides also for the pooling of receipts in the suburban area with the main line railways. Incidentally, it is of considerable interest to find that the Bill contains provision whereby five appointing trustees are enumerated whose duty it will be to appoint members of the new Board who will control the operations of this very important group of undertakings. Of these appointing trustees one is the President of the Institute of Chartered Accountants. The activities of the new Board are subject to control in many particulars by the Ministry of Transport.

The primary object of the Board is to co-ordinate passenger transport within the London Transport Area (extending some considerable distance outside London proper) and with directions to fix such fares and charges so as to secure that their revenues shall be sufficient to defray all their revenue charges. The existing statutory provisions as to charging powers are to have effect and the power of the Minister to revise tramway fares is to cease, but no goods or animals may be carried on any road vehicle. Fares in force on the date of transfer of the undertakings are to be scheduled and deposited at the Ministry and to be open for inspection. Revision of fares may be made by the Railway Rates Tribunal on the application of any local authority or the Board so as to increase or reduce the fares, but twelve months must elapse between any general revision unless there has been a material change of circumstances, and this extends to main line suburban fares.

With regard to alterations of services or facilities, or new services or facilities which may be contemplated, there are provisions safeguarding the financial position of the Board or the main line railways in the hands of the Rates Tribunal, and these extend to the fixing of fares and the provision or withdrawal of services.

The existing capital powers of the present railway companies are transferred to the Board with further powers to borrow ten million pounds. The Board are to establish a Reserve Fund and an Insurance Fund. Sinking funds for the Tramway Debt liquidation and a general sinking fund for the redemption of debt within a ninety-year period are also constituted.

An annual report in a form to be prescribed by the Minister is to be made, and also such financial and

statistical returns furnished as may be determined, and also annual accounts are to be prepared in a form to be prescribed, and such accounts are to be audited.

The Act provides for the payment of interest on the various capital stocks of the Board at fixed rates in order of priority. The last stock is designated "C" stock which has a standard rate of dividend of 5 per cent. for two years and thereafter at 5½ per cent., and in such later period further interest out of available revenues. If such additional interest is not distributed, it is to be paid into a special fund called "'C' Stock Interest Fund," and moneys may be withdrawn from that fund to pay interest up to a maximum rate of 6 per cent.

The Act contains elaborate provisions as to settlement of disputes as to pay and conditions of service through a Wages Board and Negotiating Committee and by the establishment of Councils on which employees are represented.

This Act contains many other provisions which I have not attempted to deal with. There are some hundred or more sections and sixteen schedules. Those I have mentioned I have compressed very much, but it seemed to me that this, the latest Act of Parliament to deal with Public Utility Undertakings, was of sufficient importance to merit consideration in this paper, even if my effort may be said to be somewhat sketchy and wanting in detail.

ROAD TRANSPORT BILL.

Whilst this paper was in course of preparation the Government announced their intention to introduce into Parliament a Bill for the control of Road Transport, and apparently this will deal both with the licensing of vehicles used for the conveyance of goods, regulating charges and hours of work, the intention, no doubt, being to exercise control over this class of business particularly with relation to the competition at present existing with the railways.

Summing up the whole question of control of public utilities, two main facts emerge—First, that all these matters are designed for the protection of the public, although, at the same time, they are drawn also to protect the interests of the investor in the various enterprises by giving him a reasonable return on the capital invested. Secondly, it will be seen how very considerable are the powers vested in the various Government departments. There are people who object to what is termed bureaucratic control, but, speaking generally, this control can be only exercised with safeguards by means of representations which can be made to the departments concerned when questions of revision of charges or profits arise and, if such questions are raised by the undertakers, there is, in many cases, the ultimate authority and control by Parliament itself for the protection of the public. The principal departments with whom these matters rest are:—

- The Board of Trade.
- The Ministry of Health.
- The Ministry of Transport.
- The Electricity Commissioners.
- The Railway Rates Tribunal.

In conclusion, I can hope only that I have introduced to you a subject which, while it may not be familiar to all accountants, is, as I suggest to you, nevertheless, of practical interest to all citizens.

STATUTES CITED.

Railway and Canal Traffic Act, 1854.
Regulation of the Forces Act, 1871.
Regulation of Railways Act, 1873.
Railway and Canal Traffic Act, 1888.
Railway and Canal Traffic Act, 1894.
Railway Companies (Accounts and Returns) Act, 1911.
Railways Act, 1921.
The Companies Clauses Consolidation Act, 1845.
The Waterworks Clauses Act, 1847.
The Waterworks Clauses Act, 1863.
The Statutory Undertakers (Temporary Increase of Charges) Act, 1918. (This Act has expired.)
The Water Undertakings (Modification of Charges) Act, 1921.
The Gas Works Clauses Act, 1847.
The Gas Works Clauses Act, 1863.
The Gas Works Clauses Act, 1871.
The Gas and Waterworks Facilities Act, 1870.
The Gas and Waterworks Facilities (Amendment) Act, 1873.
The Gas Regulations Act, 1920.
The Gas Undertakings Act, 1929.
The Tramways Act, 1870.
The Tramways (Temporary Increase of Charges) Act, 1920.
Metropolis Water Act, 1902.
Metropolitan Water Board (Charges) Act, 1907.
Metropolitan Water Board (Charges) Act, 1921.
The Port of London Authority Act, 1908, and subsequent Acts of 1920, 1923 and 1932.
Harbour and Docks (Temporary Increase of Charges) Act, 1920.

APPENDIX A.

Railways Act, 1921.

ADJUSTMENT OF CHARGES TO REVENUE.

Adjustment of Powers of Charging to Revenue.

Section 58.—(1) The charges to be fixed in the first instance for each amalgamated company shall be such as will, together with the other sources of revenue, in the opinion of the rates tribunal, so far as practicable yield, with efficient and economical working and management, an annual net revenue (hereinafter referred to as the standard revenue) equivalent to the aggregate net revenues in the year nineteen hundred and thirteen of the constituent companies and the subsidiary companies absorbed by the amalgamated company, together with—

- (a) A sum equal to 5 per cent. on capital expenditure forming the basis on which interest was allowed at the end of the period during which the constituent companies and subsidiary companies were in the possession of the Government; and
- (b) Such allowance as may be necessary to remunerate adequately any additional capital which may have been raised or provided in

respect of expenditure on capital account incurred since the first day of January, nineteen hundred and thirteen, and not included in the expenditure referred to in the last preceding paragraph, unless it can be shown that such expenditure has not enhanced the value of the undertaking; and

- (c) Such allowance as appears to the rates tribunal to be reasonable in respect of capital expenditure (not being less than twenty-five thousand pounds in the case of any work, and not being capital expenditure included in paragraph (a)), on works which enhance the value of the undertaking, but which had not at the beginning of the year nineteen hundred and thirteen become fully remunerative:

Provided that, in determining the sum which charges will, with efficient and economic working and management, yield, the tribunal shall, with a view to encouraging the taking of early steps for effecting economies in working and management expenses rendered possible by or in anticipation of amalgamation, take into consideration the economies effected by such steps already taken, and shall make such allowance in respect thereof as the tribunal may consider fair and equitable to an amount not exceeding thirty-three and one-third per cent. of such economies.

(2) The tribunal when fixing charges in pursuance of the provisions of this section shall have regard to the means which in their opinion are best calculated to ensure the maximum development and extension in the public interest of the carriage by railway of merchandise and of passengers and their luggage, and shall accordingly ascertain as far as may be practicable the effect which the existing charges, or any of them, have had upon the merchandise or passenger traffic to which they are applicable, and in particular whether the application of such charges has tended or, if continued, would be likely to tend towards causing the increase or diminution of the said traffic.

(3) If on any such review as is mentioned in the next following section it appears to the rates tribunal that the allowance made under paragraph (c) of subsection (1) of this section was too high or too low, the tribunal may revise the allowance and make such adjustment in the amount of the standard revenue as may be necessary.

(4) When fixing the charges necessary to produce the standard revenue, the tribunal shall take into consideration the charges in respect of any business carried on by the company ancillary or subsidiary to its railways, the charges for which are not subject to the jurisdiction of the tribunal, and if in the opinion of the tribunal the company is not making, or has not taken reasonable steps to enable it to make, adequate charges in respect of any such business, the tribunal shall, in fixing the charges under this Part of this Act, take into account the revenue which would be produced by any such business if adequate charges were in operation.

Periodical Review of Standard Charges and Exceptional Rates.

Section 59.—(1) The rates tribunal shall review the standard charges and exceptional charges of each amalgamated company at the end of the first complete financial year after the appointed day, or, if the appointed day is the first day of January in any year, at the end of that year, and, unless directions are given by the Minister to the contrary in manner hereinafter appearing, at the end of each succeeding year, and the review shall be made on the experience of the operation of those charges for the period during which the standard charges have been in operation, or, if that period is more than three years, then on the experience of the operation of those charges during the preceding three years.

(2) The Minister may direct as respects any year after the second annual review that a review shall not be held, and the directions may extend either to all the amalgamated companies or to any one or more of those companies :

Provided that no such direction shall extend to any company which has applied to the Minister for a review, or in respect of which the Board of Trade on the application of any representative body of traders have requested that a review shall be held.

(3) If on any such review the rates tribunal find that the net revenue or the average annual net revenue obtained, or which could, with efficient and economic management, have been obtained, by the company during the period on the experience of which the review is based is substantially in excess of the standard revenue of the company, with such allowance (if any) as appears to the tribunal necessary to remunerate adequately any additional capital which may have been raised or provided in respect of expenditure on capital account incurred since the date upon which the standard charges were fixed in the first instance, the tribunal shall, unless they are of opinion that owing to change in circumstances the excess is not likely to continue, modify all or any of the standard charges and make a corresponding general modification of the exceptional charges of the company so as to effect a reduction of the net revenue of the company in subsequent years to an extent equivalent to eighty per cent. of such excess :

Provided that the tribunal in making such modifications as aforesaid as respects one amalgamated company shall, so far as practicable, avoid making such modifications as would be likely to affect prejudicially the financial position of any other railway company.

(4) If on any such review the rates tribunal find that the net revenue or the average annual net revenue obtained by the company during the period on the experience of which the review is based is less than the standard revenue of the company, with such allowance (if any) as appears to the tribunal necessary to remunerate adequately any additional capital which may have been raised or provided in respect of expenditure on capital account incurred since the date upon which the standard charges were fixed in the first instance, and that the deficiency is not due to

lack of efficiency or economy in the management, the tribunal shall, unless in their opinion owing to change of circumstances the deficiency is not likely to continue, make such modifications in all or any of the standard charges and such a corresponding general modification of the exceptional charges of the company as they may think necessary to enable the company to earn the standard revenue with such allowance (if any) as aforesaid.

(5) Whenever on any such review such an excess as aforesaid is found then, for the purposes of subsequent reviews, sub-section (3) of this section shall have effect as if for the standard revenue there were substituted a sum (hereinafter referred to as the "increased standard") equal to the standard revenue with the addition of twenty per cent. of such excess, and whenever on any such subsequent review an excess is found above the increased standard together with the allowance (if any) for additional capital, then, for the purpose of subsequent reviews, the increased standard shall be increased by a sum equal to twenty per cent. of such excess, and so on :

Provided that, if at any time after such an excess has been found, the standard charges and exceptional charges are modified in pursuance of sub-section (4) of this section on account of a deficiency, no such substitution shall be made until an excess above the standard revenue together with the allowance (if any) for additional capital is again found.

(6) The rates tribunal, when modifying charges on any such review, shall have regard to the like considerations as when fixing charges in the first instance :

Provided that the tribunal shall have regard to the financial results obtained from the operation of any ancillary or subsidiary business carried on by the company, and if satisfied that the net revenue resulting therefrom is, having regard to all the circumstances, unduly low, may, for the purpose of such review, make such deductions from the charges which would otherwise have been fixed as they think proper.

(7) The modifications of standard charges and exceptional charges made in pursuance of this section shall take effect as from the first day of July in the year following the last year under review or such other date as the rates tribunal may fix.

Discussion on Mr. Cash's Paper.

MR. ARTHUR COLLINS, F.S.A.A., in opening the discussion, said a great deal depended upon the way the public looked on undertakings with a monopoly of the article or service they supplied. If by general consent the service was one which should either be in public hands, or, if not, should be placed beyond exploitation in the pernicious sense, the degree of the control of the service in the hands of a company, or of anybody except the public representatives, was likely to be extensive and strict. If, however, the business was one which it was thought by the public should more appropriately be entrusted to private enterprise, then anything reasonable and broadminded in the form of safeguards against exploitation of the public met the case. In Great Britain, water supply came within the former category, and railways in the latter, speaking quite broadly. It followed that the control of charges and profits of statutory undertakings was exercised in a variety of ways, differing in each country, and in respect of each undertaking, according

to its nature and to the attitude of mind of the public towards it. The accountancy profession, particularly those members of it who specialised in public utility accounts, was entrusted with a heavy responsibility as the servants of the public in connection with monopolies like gas, electricity, or water. If they acted for the operating company, they had to keep in mind not only the need for correct accounts, but the assistance they could render the directors in maintaining a fair balance between charges and profits. If they served the local councils as officials or advisers, looking at these accounts from the point of view of the public, as consumers, they had to discharge the duty of criticising, constructively wherever possible, the charges of the company, without damage to the reputation and standing of the company when it came to raise capital for the development of the business. It was common ground that whether the monopoly supply was furnished by a public body or by private enterprise, the following conditions should be met:—

- (a) The proprietors should not be at liberty to pick and choose their customers, but that with the right of supply there should be the obligation to give service upon reasonable terms and conditions. All consumers in the like circumstances must be charged the same prices.
- (b) That the prices charged for the services rendered should be sufficient to ensure a reasonable return upon the capital employed.
- (c) That what constituted a reasonable return must depend upon the circumstances of each case, as it was not capable of standardisation either for all concerns of one character or for public utility businesses of a different nature operating in the same district.
- (d) That maximum prices should be fixed for all supplies, either comprehensively or in categories, or if there was no maximum price fixed, that a maximum or limit should be placed upon the dividends payable on capital, such limit being settled in many cases in relation to prices charged, so that by a sliding scale the dividend might rise as the prices were reduced, and *vice versa*.

It was only upon some such general forms of restraint upon improper trading that the proprietors were confirmed in their possession of the monopoly and protected from competition wholly or partly. Absolute protection, even with the most stringent safeguards, of the public rights was practically almost impossible. The trend of public opinion in this country had been towards public ownership of monopoly businesses like gas, water, electricity and transport. Electricity undertakings and tramway concerns provided by private enterprise were nearly all subject to rights of purchase on behalf of the public. Rights of purchase were frequently given by Parliament where a company providing a public utility service had not been able to show a good record after operating some years. Control of charges and profits by the scrutiny of accounts and by the use of Parliamentary restrictions, was not the only effective method open to the public. The fear of the local authority exercising its rights of purchase of the undertaking was commonly a strong inducement to the private company to keep the charges and dividends down to a level which the local authority itself might not be able to maintain, if it superseded the operating company. Great difficulty was experienced by the National Government of any country in framing and adjusting from time to time the measures which maintained a fair balance between the interests of the consumers and the interests of the shareholders of a monopoly business in private hands. In Great Britain the provisions of Parliament applicable to private trading in these monopolies were to be found partly in the general law and partly in what was termed private legislation applicable to a particular undertaking. It was really necessary to proceed, as Mr. Cash did, by way of historical review, to perceive how the various methods of control had been imposed upon railways,

water, gas, electricity, tramways and similar undertakings. No review of the British provisions for keeping in check the prices charged and the dividends paid by private monopolistic undertakings would be complete if it did not draw attention to the great value of Private Bill procedure. On the face of it, it would seem to be the case that the promotion of a Private Bill for the consideration of Parliament would enhance only the interests of the proprietors. In fact the promotion of the Bill presented the opportunity to the members of the local councils, who represented the interests of the consumers, to ask for the approval of Parliament to stronger and more effective powers of control over the enterprise and operations of the proprietors of the private undertaking, where experience showed they were needed. In the long run, whether by general or local legislation, it was the British practice to provide for the following essentials, namely: The right of consumers to have a supply on reasonable terms; a reasonable dividend upon capital employed; a maximum dividend or a sliding scale dividend related to prices; and general recognition of the fact that there was an element of trust, as well as commercial enterprise, in the conduct of a business protected from competition by another company or public body in the same industry in the same vicinity. It was a fortunate circumstance that in this country we had not been involved in strife about the amount of capital which was to be taken for the basis of the calculation of dividends. We had fairly clear ideas of what was an appropriate rate of interest upon capital employed. We invariably took the capital actually invested in the concern subject neither to appreciation nor depreciation, and the average rate of dividend thought to be reasonable had a fairly close relationship to the return for the time being obtainable on investments in Government securities. While we had not in this country experienced a period of acute controversy in the matter of charges for gas and electricity, or transport, as in the United States—accentuated he feared by the American doctrine of variable values of the capital employed in these businesses, and to excessive nominal capitalisation—it was interesting to observe the movement in that country towards converting consumers into shareholders. In Great Britain not a great deal had been done in that direction. It might or might not be a good policy for most consumers to be shareholders of local monopoly businesses, but the minorities in any case must be cared for, and on the whole it was considered that the methods we employed in Great Britain for the control of charges and profits of statutory undertakings were based upon reasonable foundations and gave general satisfaction. The wide range of this subject compelled him to make but a brief reference to the charges and profits of publicly-owned undertakings. In these cases "service at cost price" was the maxim favoured by Parliament and adopted by most local councils, though profit making in relief of local rates was, as Mr. Cash had shown, not entirely forbidden by law, e.g., on electricity supplies. Where a local council supplied areas outside its jurisdiction for government purposes, the charges made were often controversial, and much could be said for and against differential prices favouring consumers who were responsible as ratepayers to make up trading deficiencies in bad years, against those outside consumers who were not. Although the levy of charges for gas, &c., at profit-making prices, where the area of supply and the area rateable for deficiencies was the same, might appear to amount to more than "change for sixpence," or transferring money from one pocket to another, there was considerable difference in the incidence of levies upon ratepayers for public expenses like roads, and levies on gas consumers to make profits to devote to road maintenance. But apart from that, Parliamentary Committees were tender towards producers in these hard times, and high charges for power or heat or illumination, or water, added to the costs of production in many cases more than the rate-relief from trading profits. This was a consideration which had influenced the present tendency of Parliamentary opinion in favour of cost-price; including actual capital charges for monopoly supplies by public bodies.

In conclusion, Mr. Collins referred to the need of standardised accounts of monopoly concerns in the hands of private companies or public bodies. It would be a great achievement if out of such conferences as the present there gradually emerged a plan for the establishment of an international form of accounts for businesses supplying water, gas, electricity, transport, and so on. Perhaps they might one day be able to compare the costs of electricity from water power in Canada, for example, with electricity generated by a company in Europe from coal. At present they would not be sure they were comparing like with like even in testing the cost of water between a public body and a private company in England, using the published accounts for that purpose. It was partly by good accounting that the most economical production was attained, as the technical managers of all public utility undertakings would readily agree, and comparative costs, on uniform analyses could be made into more powerful servants of the public than they were to-day. (Cheers.)

Mons. J. C. SPANGENBERG (Holland) said he wished briefly to inform them as to the practice in Holland. It appeared from the paper that there were a great number of Acts in England relating to public utility undertakings. In Holland, on the contrary, there were only a few particular Acts in that respect, such as the Railway Act and the Tramway Act, and in these all the details of those undertakings had been regulated. It was enacted, amongst other things, that: (1) The rates were to be fixed by the Government in consultation with those responsible for the undertaking; (2) the Government could reduce those rates; (3) the Government guaranteed a net profit of 4 per cent. on the share capital. If in one year this minimum profit were not earned the railway company could receive the minimum dividend granted, provided the company could justify its loss, which would be controlled by the Government. If the net profit amounted to more than 4 per cent. up to 9 per cent. of the share capital, the shareholders would receive a further 2½ per cent. and the Government another 2½ per cent. If the net profit were more than 9 per cent. of the share capital the shareholders would receive only one-fifth of that surplus while the Government would receive the remaining four-fifths; (4) the Government had the right to nationalise the railways. (The Government itself was one of the largest shareholders.) For tramway companies, excluding the one-city tramways, there were similar regulations, but a minimum dividend was not always guaranteed. Regarding the water, gas, and electricity undertakings, as well as the one-city tramway companies, no particular Acts existed. That was mainly due to the fact that nearly all such undertakings in Holland were municipal undertakings. Those undertakings were therefore more or less in the position of monopolies. He said "more or less" because the municipal tramways, for instance, had to fight against the keen competition of the autocars. On the other hand, some city corporations were endeavouring to make regulations regarding motor car upkeep, the fitness of chauffeurs, the fares, &c., so that in those cities it became very difficult for private concerns to maintain the competition. Owing to their monopolised position the municipal undertakings as a rule paid relatively high wages, and therefore they were obliged to charge relatively high rates, and in the case of a loss the taxpayers finally had to pay for it. There was a further group of undertakings which required special attention, viz. life assurance companies. Those undertakings were, since 1922, governed by the Life Assurance Act, which was intended: (1) To give a sound basis to the confidence of the public without restriction of freedom of management; (2) to secure as great publicity as possible; and (3) to establish the Life Assurance Board, which had the duty of advising the companies as to the management, &c. (the members, the secretary, and the chairman of the Life Assurance Board were appointed by the Government); (4) the business of life assurance could only be carried on by limited liability companies or corporations, and they were not allowed to carry on other business;

(5) instructions were given regarding the stipulations which must be inserted in the Articles of Association of a life assurance company; (6) the Life Assurance Board was entitled to make inquiries of the companies, and it was not necessary to wait until the annual report was published; (7) each year a prescribed number of uniform statements had to be published, analysing in full the management and the financial position of the company as well as a specification of income and expenditure; (8) the Life Assurance Board was entitled to have access to the books and documents of any life assurance company; (9) stipulations were given regarding the way in which a company might carry over its contracts to another company; (10) the Life Assurance Board was always entitled to dismiss the directors and managers and appoint other persons or itself to undertake the management; (11) the Board had power to change the investment policy and to indicate the bank with which the stocks must be deposited and to order that stocks must be kept in Holland; (12) finally, the Board could make a request to the Court of Justice to remedy the financial situation of any life assurance company. (Cheers.)

Mr. W. B. KEEN, F.C.A., said the point of interest to him was the question as to how far the protection of the public was in fact secured by the legislation with regard to these statutory companies; and in that connection it was perhaps useful to consider exactly what the procedure was. A company desiring to obtain statutory powers promoted a Bill; the Bill was drawn and it set out the powers that the company desired to exercise, the charges that they should be authorised to make, the dividends they should be authorised to pay, the amount of capital they should be authorised to raise, and the general provisions for regulating the business. That Bill, after being advertised so that any public interests might petition against it, was submitted to various departments who reported upon it particularly as to whether it established any new precedents. Parliament was always jealous of any new precedents being made. Then the Bill, after second reading in the House, came before a Select Committee for consideration. The promoters appeared by counsel and witnesses and made their case for the Bill; the opponents were entitled to appear also by counsel and witnesses in opposition. Let them assume that the Bill was for constituting a statutory gas undertaking and that the proposal was that it should be a sliding scale company. Under the old procedure the practice was that the company had a maximum price it might charge and a maximum dividend it might pay; in view of those limitations no great importance attached to what the statutory maximum price was, it always allowed a margin beyond the price charged at the moment, and the fact that the dividend was limited constituted a protection for the consumer. Very often the company would put forward very good financial evidence, and the opponents were not sufficiently organised to put forward criticism or suggest modifications. The sliding scale company, being a gas company, suggested that the appropriate standard price which was to correspond to the standard dividend was so and so, and they would probably call in support of that proposal Mr. Cash as their financial witness. Parliament would attach great importance to Mr. Cash's evidence. Let them assume that the promoters had not thought fit to call an accountant to deal with those matters, or alternatively had called an accountant with very little experience to set against Mr. Cash; then the chances were that a higher price might be inserted as the standard price than the circumstances warranted. The result, therefore, would be that the standard price and the standard dividend would be inserted in the Bill, and it would become an Act of Parliament. The company would then proceed to carry out its function, and when it had paid its maximum dividend the directors would be embarrassed by the question as to what should be done with the profits. They would not like to distribute them among consumers in the form of a reduction of price, and therefore they would consider if they made adequate provision for reserves. With regard to the

consumers' benefit, the old sliding scale under which the price was definitely related to the dividend and under which a penny increase or reduction in the price of gas per 1,000 feet was followed by a reduction or increase of 5 per cent. in the dividend was regarded almost as a heaven sent scheme and was considered satisfactory. But that broke down in consequence of the war and the large increase in prices, and the result was that a temporary measure was passed, to which Mr. Cash had referred, under which the reduced dividend was made the minimum dividend. After the war the companies hesitated to part with the advantage of the minimum, and it was in consequence of that that the new system of consumers' benefit was adopted—the system of charging by therms. It was an ingenious device and apparently it had come to stay, but he thought it was unfortunate that they had not been able to devise adequate protection for the consumer while doing justice to the company without something less elaborate. (Applause.)

Mr. D. M. MUIR, F.S.A.A., F.I.M.T.A., said there was only one point which he would like to put to Mr. Cash. In Scotland the water and gas undertakings were almost entirely in the hands of the local authorities and not in those of private concerns. With regard to electricity, there also the local authorities for the greater part had control of the supplies; but in some cases, where the local authority obtained orders or a Private Bill under the Electric Lighting Act, 1899, many of the corporations leased their rights to private companies. Under the provisions of the Acts, the local authority had some right to have regard from time to time to the prices charged to consumers in order that the consumer might be protected against overcharging by the company. He was wondering whether Mr. Cash could suggest to them the proper means by which the local authorities could exercise their control, because it was sometimes found that whilst the electricity companies were exercising their powers under the Electric Lighting Acts, they were at the same time supplying electricity for power purposes, and his experience was that the accounts of those companies became so involved as between the cost of the distribution of power and the cost of the distribution of lighting facilities that it was virtually impossible to arrive at what the proper cost of production and distribution of electricity for lighting purposes was. Perhaps Mr. Cash could give them some indication as to the proper method by which the accounts of those companies should be presented in order that the control which was vested in the local authorities might be efficiently carried out. (Cheers.)

Councillor FREDERICK WILSON, F.C.R.A., said that with regard to methods of control, the most usual in the case of privately owned undertakings was the maximum dividend and maximum price method. This protected the consumer from an unduly high charge, but was not sufficiently flexible, especially where the maximum price was fixed not far above the actual price, since an increase in costs, such as that which followed the war, limited profits to an extent which prohibited the payment of reasonable dividends. On the other hand, if this was fixed too high it enabled charges to be made higher than those which would obtain under free competition. The fact that the control was there no doubt obviated its use, as one might instance in the case of the police. There was what was known as the standard revenue system applied to railways, but owing to depression in industry and commerce they could not reach it. Then they had the sliding scale system, applied to gas companies and some electricity undertakings, by which a certain rate of dividend was related to a certain price. A reduction in price permitted an increased dividend, and *vice versa*. That system was not ideal, since the "unearned increment" arising from a downward trend in prices ensured to the advantage of the stockholder. On the other hand, a rise in costs reduced dividends to an unremunerative level. Then there was the basic price system—similar to the sliding scale, except that a rise in costs, followed by increased price for the service, was not followed by a reduction in dividends, although a reduction in costs

increased the amount available in remuneration of capital. The ideal method of control would provide for a reasonable return on capital and enable an increased dividend as the reward for efficient management, whilst retaining for the consumer the benefit of a general reduction in costs, and rewarding the employee for increased efficiency. That ideal had yet to be found. The accounts of public utility undertakings generally followed a standard form, either prescribed by the Central Authority or agreed by associations representing the class of undertaking. Comparison of all items in the accounts was rendered difficult by differences due to local circumstances, but comparison was possible in the details, and the reason for the differences could be brought to light. Costing was essential to enable tariffs to be fixed, but had no direct or final bearing on the question of control of prices. Costing in a tramway undertaking would show which routes paid and which were run at a loss, although the public interest might require a route to be maintained, whether profitable or not. Costing divided the cost of producing electricity between fixed charges and running charges, and thus enabled suitable tariffs to be devised. The cost of a unit consisted of a proportion of the fixed charges plus a proportion of the running charges; but since the fixed charge must be borne in any case, it might be profitable to sell current at a figure only slightly higher than the running costs, as any contribution at all towards standing charges increased the net profits. He wished Mr. Cash had been able to provide them with some more expeditious and less costly methods of settling differences and disputes between local authorities and privately owned undertakings. He was fully aware that there were many interests involved and to be protected, but failing local settlements they proceeded to the Board of Trade as the immediate and appropriate department concerned, then to a Select Committee of the House of Lords, and even on to Parliament itself, and before a settlement was finally arrived at many weary months had elapsed and often very great expense was involved. (Applause.)

Mr. D. W. COATES, F.C.A., said it had occurred to him that some further reference to the Electricity (Supply) Act, 1926, which established the Central Electricity Board, might be of general interest both because of the radical addition which it made to the structure of the electricity supply industry, and because, while adhering in principle to the restriction of prices and profits, the methods of applying the principle differed from those which Mr. Cash had described. The Act, with its schedules, apart from sundry Orders and Regulations made under it, which required to be read with it, ran to 50 or more pages, and any summary in a few words must be rather rough and ready; but, broadly speaking, the Board's appointed task was to supply wholesale all the electricity required by distributors for sale retail to consumers. For that purpose they had constructed the "grid" to inter-connect the generating stations at which the electricity would be produced and the undertakings to which it was to be transmitted. Inter-connection was only practicable given a uniform frequency, and the Act therefore provided for the necessary standardisation to be effected. As Mr. Cash had stated, the Board were given by the Act borrowing powers of 33½ million pounds. That amount was increased by Special Order in 1930 to 50 million pounds, of which roughly 19 millions was provided for the cost of standardising frequency. The Board raised their money by the public issue of fixed interest bearing stock. In so far as the money was borrowed for the purpose of standardisation of frequency, the interest upon it and sinking fund contributions for its repayment were recoverable by the Board from the Electricity Commissioners, who in turn reimbursed themselves by means of a levy on the whole electricity supply industry. It was not contemplated that the Board would acquire generating stations, but that certain stations chosen for their efficiency and with due regard to their geographical situation, should become what were called selected stations, and that from a date fixed by the Board each of those stations should be operated under the Board's directions. After that date the Board took

the whole output of the station, paying for it, unless otherwise agreed, at the cost of production. The Board's costs would thus be the purchase price of the electricity they bought and the cost of managing, operating and maintaining the "grid" system, including interest and amortisation. From the date when the Board gave notice that they were ready to supply in any area, any authorised undertaker in that area was entitled to demand a bulk supply and the Board must give it, directly or indirectly. The price ordinarily payable for a direct supply was a price in accordance with a tariff fixed by the Board, except that owners of selected stations were entitled to buy back electricity which they had generated at the cost of production adjusted to the circumstances of their supply, together with an appropriate proportion of the Board's expenses. If the Board gave a supply indirectly, through another undertaker, instead of directly from the "grid," the undertaker giving the supply was required by the Act to charge for it on the same terms as were charged to him by the Board plus the cost of transmitting it to the other undertaker, the transmission cost being ascertainable in a manner provided by the Act. To enable the Board to keep their charges low from the beginning they were given, subject to consent, the not uncommon power to postpone provision for amortisation. They were also given—again subject to consent—the less common power of charging interest to capital for a time. But the most important and most novel provision affecting the Board's prices and profits was that their tariff should be fixed so that, not year by year, but over a term of years to be approved by the Electricity Commissioners, the receipts on income account should be sufficient to cover the expenditure on income account with such margin as the Electricity Commissioners might allow. The Board had fixed their tariff for two areas, and in those areas the period adopted within which the revenue account was calculated to balance was ten years.

Mr. W. APPLETON, F.R.A.N.Z. (New Zealand), said that in New Zealand they followed very largely on the lines of other countries in regard to statutory undertakings, and for the most part public services were run by Government Departments. They had not, however, in the case of gas companies, adopted the sliding scale by which the lower the prices charged the higher the dividend. There was a good deal of trouble in New Zealand owing to the fact that privately owned gas undertakings had to pay income tax whereas local bodies were not charged income tax. As a result of that, the electric lighting companies were free of income tax, whereas the gas companies had to pay it, and this was a bone of contention. Another thing was that a large number of the local government undertakings went in for trading in electrical apparatus, and that had also caused some trouble. In some parts of New Zealand the local bodies carried the principle of control farther than was the case in England. For instance, in Wellington the local body controlled the milk supply and fixed prices. One point that occurred to him arising out of the discussion that morning, was that when it came to framing Bills and getting authority, it would be a good idea for the Government, in order to protect the public, to provide that an auditor should be appointed by the local authority.

Mr. F. J. ALBAN, F.S.A.A., said, in connection with public ownership, their colleagues from other countries might not realise that in this country we had, in the building up of public utility undertakings under public ownership, to a great extent been the slaves of what might be called "parochial boundaries." Adherence to that fetish of the parochial boundary had led to considerable waste and duplication which was only gradually being put right in the realms of electricity and transport, and to a smaller extent as regarded water supply. There was probably agreement that the provision of water supply could best be done by local authorities or joint boards of local authorities, but as regarded other public utility undertakings there was room for considerable divergence of opinion. Of late years there had been a considerable development of the principle of establishing joint boards to exercise public utility functions over

fairly wide areas. As regarded water, apart from the Metropolitan Water Board, they had in the counties of Glamorgan and Monmouth five fairly large Joint Water Boards. The Manchester Corporation water undertaking was a notable example of the local authority maintaining a water undertaking which supplied outside areas of very considerable extent. The old theory that local authorities adjoining a pipeline could have a "drink" therefrom at preferential rates just where and when it pleased them, received a severe setback in the Manchester Act of 1919, which contained a clause requiring due notice before construction of intended reservations, and payment to be made of a proper share of the actual cost according to the reservations—actual cost comprising not only the cost of maintenance and management, rates and taxes, but also interest on capital at an agreed rate. In connection with charges for supplies by public utility undertakings, there was still room for uniformity. Water supply provided many anomalies. A lack of uniformity prevailed throughout the whole system of charging domestic consumers. The basis appeared to be a choice between annual cost, gross estimated rental, rack rent, rateable value, &c., the rate charged being a choice between a fixed percentage throughout, a percentage rate diminishing as the rateable value increased, and an arbitrary scale. In the case of electricity, Mr. Cash showed with regard to certain electricity undertakings that from 1925 onwards the companies were setting aside sinking funds for the redemption of capital, calculated so that in 1971 the whole of the undertaking would pass to the London and Home Counties Joint Electricity Authority, the same authority having to pay for stocks, stores and debts taken over, and a further sum for assets acquired during the latter part of the term not fully provided for by the sinking fund. In that way the company would be repaid the whole of their capital then outstanding, and the undertaking would pass into public ownership. One great objection urged to public ownership by local authorities was that members elected by the popular vote were not necessarily gifted with the business knowledge requisite to manage commercial undertakings. It was interesting to observe, therefore, the special efforts made in the case of the London Passenger Transport Act to combine with public ownership efficient business management. (Applause.)

Mr. H. E. BOADEN, F.L.A.A., said that Mr. Cash, in dealing with water undertakings, had stated that water companies in many instances had been transferred by purchase to local authorities. He would like to supplement Mr. Cash's remarks in that connection. In cases where such transfers had taken place, the results obtained under public and private ownership respectively were often compared, but when drawing those comparisons there was one point which was almost invariably overlooked by the average ratepayer. He referred to the fact that municipally owned water undertakings were compelled by statute to provide for the repayment of the purchase price within a stated period. Mr. Cash had mentioned the fact that the Metropolitan Water Board Act of 1902 granted an exceptionally long loan period of 100 years, but in contrast to that a recent Act providing for the transfer of a water undertaking to a municipality stipulated that the purchase price must be repaid within 45 years from the date of transfer. It could not be denied that this provision for capital redemption was a charge against the revenue of a publicly owned undertaking from which companies were entirely free. Whether it was desirable that the purchase price should be repaid within such a comparatively short period was a debatable point. In summing up his paper, Mr. Cash stated that two main facts emerged, one of which had reference to the protection of the interests of the investor in the various enterprises by giving him a reasonable return on the capital invested. It was, of course, necessary to protect the investors' interests to the fullest possible extent in order to attract capital on the most advantageous terms, but it was undoubtedly the case that the security offered to the investor upon transfer to a municipality from a privately owned company was sometimes considerably increased and, in his opinion, excessively.

Mr. THOMAS HAWORTH, F.S.A.A., said that as the Chief Accountant of the Port of London Authority, which was often referred to as an example of the public board type, he was well acquainted with a measure of statutory control, not only in regard to charges, but in many other matters affecting their finances and operations. The Board of the Port Authority consisted of twenty members and the chairman, of whom eighteen were elected by the payers of dues and charges. Going back over the last nine years or so, since he took up his duties, he could recollect very few cases indeed where the Minister of Transport had been requested by traders to intervene on their behalf, while there was certainly no case in which he had had to hold anything in the nature of an inquiry or to make a decision. That comparative immunity was probably due to the fact that the Board was very largely elected by the traders themselves. The control of profits, in their case, was practically non-existent as a direct measure, since their revenue balance was to be applied for the benefit of the Port as the Board directed. There was, of course, an indirect control of profits, or at any rate of dividends, by reason of the restriction upon the issue of Port stock, though since the state of the financial market also controlled the rate of interest on Port stock and its issue price, it seemed that the statutory control was, except in regard to total borrowing powers, almost superfluous. When the Port Authority was established in 1909 it was given powers for raising additional revenue by levying a charge on goods imported and exported. Those charges, so far as London was concerned, were of an experimental character, and no doubt it was felt that they should be rigidly controlled and curtailed. To that end the Port of London Act, 1908, contained elaborate provisions to protect the various interests. It was now generally agreed that that formidable method of control was more than the situation required, particularly as the provisions had now been amended to cover nothing more than a schedule of maximum rates and charges. Considering the matter in all its aspects, he thought the question and degree of statutory control must depend upon the measure of control already in the hands of the users and consumers, and for that purpose at any rate an elected Board should ensure a greater measure of freedom from legislative restriction. (Cheers.)

Mr. W. H. BODDINGTON, F.C.W.A., A.I.M.T.A., said he wished to refer very briefly to that section of the paper dealing with tramways. The importance of tramways in this country was illustrated by the fact that the gross receipts earned by local authorities alone exceeded 20 millions sterling per annum, and that sum was exclusive of receipts from the closely related trackless trolley vehicles and petrol omnibuses. Any surplus or deficit on the tramways of a local authority in England or Wales might be transferred to the rate fund. Inevitably that principle had a bearing on the question of charges and profits. In practice, reserve and renewals accounts were constituted, out of which was met the cost of laying new feeder cables, reconstruction of cars, and new equipment.

Mr. Cash's Reply.

Mr. WILLIAM CASH, replying to the discussion, said that as time was pressing he would be as brief as possible. First, with regard to Mr. Collins and several of the other speakers, he thought they had been too kind to him, but he appreciated very much the remarks they had been good enough to make. Mr. Collins had made frequent use in his observations of the word "monopoly." Of course, the undertakings referred to were in the nature of a monopoly, but, as Mr. Collins himself said, competition had a very important effect on the granting of monopolies of that character to-day in all undertakings except water. It was right to say that so far as defined areas were allotted to undertakings, they were, in their own particular business, monopolies. Respecting the feeling between consumers and providers, he agreed that the present-day feeling was very much better than it was at one time, when it was considered the proper thing to attack the wicked individual who was carrying on the particular business. It was interesting to learn the system employed

in Holland with regard to railways, particularly as regarded the system of Government guarantee; and they were also interested to hear about the life assurance companies. Of course, they all knew that in this country life assurance companies worked under a special Act. Mr. Keen had drawn a rather terrible picture of his (Mr. Cash's) appearing before a Select Committee of the House of Commons and having it all his own way. But that did not happen, because he always found on the other side of the table Mr. Keen or Mr. Collins. (Laughter.) Then, apparently, he did not like the new method of consumers' benefit. Well, it had been deliberately designed to meet certain circumstances which there was no time for him to discuss on that occasion, but if time had permitted he would have been disposed to join issue with Mr. Keen. He did suggest that there was protection for the consumer when it was put into action. Mr. Muir had referred to the difficulty of ascertaining the relative costs of production as between power and electricity generated for lighting purposes. Of course, there was the statutory form of accounts for electricity, but the allocation of the particular costs, as far as generation was concerned, could be ascertained. He agreed with Mr. Muir that it might be difficult to apportion the particular purpose for which the electricity was used; he did not know that he could suggest any remedy for that difficulty. Then Mr. Wilson spoke about the sliding scale and acknowledged that that was intended to ensure the benefits which could be derived by the consumer from altered circumstances, but Mr. Wilson did not lay quite sufficient emphasis on the fact that it was also intended to be a reward for efficient service. Reference had also been made by Mr. Wilson to procedure. A good deal had been done in recent years to give the Board of Trade power to proceed by Order instead of Act of Parliament, and that was intended to reduce costs. Mr. Coates had made some very interesting observations on the Electricity Act of 1926. It was early days yet to say what the effect of that would be. The provisions in the Act were very elaborate in regard to the system of selected stations and also spreading the expense of the standardisation of frequency over the industry as a whole. It remained to be seen how that was going to work. Mr. Coates acknowledged that, as regarded the ordinary maximum prices of electricity undertakings, they were largely ineffective. They were all interested to hear the peculiar position in New Zealand with regard to income tax as between the electric light undertakings carried on by Government and the gas undertakings carried on by private enterprise. Mr. Alban had quoted one very interesting case with regard to water—where Manchester, drawing water from a long distance, was put under obligation to afford supplies to other towns en route, and the difficulty of fixing what would be the appropriate price to charge for those bulk supplies. He also referred to the lack of uniformity in the matter of charges. That was quite true. He (Mr. Cash) thought they were gradually tending towards the charge being based on the rateable value of a house rather than on the rack rent. He had told them in his paper that the first charge authorised by the New River Company was based on the number of chimneys in a house. It was a curious way of arriving at it, but it was a rough method of ascertaining the relative size of a house. Mr. Boaden had referred to the charge for sinking fund which was a burden on a municipal undertaking. In some classes of business it was considered that that might take the place of what might be a charge for depreciation or renewals—perhaps more emphatically renewals in the case of a company. Mr. Boaden had instanced a case of a company which made a very good bargain when its undertaking was transferred. He (Mr. Cash) did not recognise the case personally, but no doubt Mr. Boaden was right. Mr. Boddington had referred to the important matter of tramways. It was quite true that only a small portion of his paper was devoted to that subject, but that was merely to try and keep the paper within reasonable bounds. Once more he wished to thank those present for the kind way in which they had listened to him. (Applause.)

VISIT TO SCOTLAND.

Edinburgh.

After the conclusion of the proceedings of the Congress in London, a number of delegates and visitors travelled to Edinburgh on the invitation of the Society of Accountants in Edinburgh. They stayed at the North British Hotel over the week-end and on Monday, July 24th, arrangements were made for a tour of the City of Edinburgh and its immediate surroundings. The visitors were taken in motor coaches along Princes Street and thence to the Castle. They were escorted over the Castle and spent some time inspecting the celebrated War Memorial to the Scottish members of all forces in His Majesty's service, being much impressed with its design and architectural beauty. The party subsequently visited Holyrood Palace, and afterwards made a short tour along the foot of the Pentland Hills.

The delegates and visitors were entertained to luncheon at the North British Hotel by the Society of Accountants in Edinburgh. They were received by Mr. C. J. Shiells, the President, and Mrs. Shiells. Among those present were the President of the Institute of Accountants and Actuaries in Glasgow (Sir Thomas Kelly), the President of the Institute of Chartered Accountants in England and Wales (Mr. H. L. H. Hill), the President of the Society of Incorporated Accountants and Auditors (Mr. E. Cassleton Elliott), Dr. Wilhelm Voss, Sir Thomas Whitson, Mons. Marc Barbut, Mons. W. T. J. Abbema, Mr. John F. Forbes, Mr. William Greenhill, Mrs. Greenhill, the President of the Corporation of Accountants, Limited (Mr. T. Herbert Hughes), the President of the London Association of Accountants, Ltd. (Mr. John M. Biggar), Mr. J. Stuart Gowans, Mons. C. Somerschild, Mons. Seth Svensson, Mons. J. P. Strobel, Mons. N. Butculescu, Herr K. Augsten, and Mr. John Parton.

Mr. C. J. SHIELLS extended a cordial welcome to Edinburgh to the delegates and visitors to the International Congress, and also to the representatives of the bodies of accountants in England and Wales. He said it was fitting that at the first Congress held in the British Isles the visitors should be received by the representatives of the oldest body of accountants in the world—the Society of Accountants in Edinburgh, incorporated by Royal Charter in 1854. He was glad to be supported on that occasion by his colleagues from over the border, and by the President of the Institute of Accountants and Actuaries in Glasgow. He concluded by proposing a toast to the visitors and guests.

Mr. H. L. H. HILL, President of the Institute of Chartered Accountants in England and Wales, responded on behalf of all the visitors and delegates who were present.

Mr. E. CASSELETON ELLIOTT, President of the Society of Incorporated Accountants and Auditors, proposed the toast of "The Chairman, Mr. C. J. Shiells, President of the Society of Accountants in Edinburgh." Those of them who had not been to

Edinburgh previously were charmed with the delights of that historic city, and those who had been there before had renewed their many happy recollections of previous visits and of the welcome which they always received from the Chartered Accountants in Edinburgh. Their pleasure was augmented by the kind reception they had received from Mr. and Mrs. Shiells, who had been faithful in their attendance at the meetings and functions of the International Congress in London. He asked the visitors to drink to the health of Mr. and Mrs. Shiells.

Mr. SHIELLS made a brief response.

In the afternoon the party went to Peebles, the road passing through some beautiful scenery in the Pentland and Moorfoot Hills. They were entertained to tea at the Peebles Hydro, and returned to Edinburgh about 6 o'clock.

In the evening a reception was given to the visitors and a number of guests from Edinburgh in the Freemasons' Hall, George Street. The guests were received by Mr. and Mrs. Shiells, and among those present were the Lord Provost of Edinburgh and the Master of the Merchant Company. In the course of the evening a selection of Scottish national songs was rendered.

Glasgow.

The Institute of Accountants and Actuaries in Glasgow and the Corporation of Accountants, Limited, acted as joint hosts to the visitors in Glasgow, where they arrived on the morning of July 25th. They were conveyed by coaches from Queen Street Station to the Central Hotel, and afterwards made a short tour of the city by motor.

Sir Thomas Kelly (President of the Institute of Accountants and Actuaries in Glasgow) presided at lunch in the Central Hotel, when the visitors received a warm welcome both from Sir Thomas Kelly and from Mr. T. Herbert Hughes, President of the Corporation of Accountants.

The party toured the lochs in the afternoon, proceeding by the Stockiemuir Road and Balloch to Loch Lomond, and returning by Loch Long and the Gareloch. Tea was served at Tarbet on Loch Lomond.

On the following day the visitors took train to Gourock, crossed to Kilmorye by steamer, and drove in coaches by the Holy Loch, Lock Eck and Loch Fyne to Inveraray. Lunch was served on board the turbine steamer, "King George V," which conveyed the party back to Gourock, whence they returned to Glasgow. The weather, hitherto dull and wet, was all that could be desired during the journey from Inveraray. Arran, with its peaks still cloud-capped, appeared a gloomy isle in the sunlit sea.

Mr. T. Herbert Hughes (President of the Corporation of Accountants) occupied the chair at dinner in the Central Station Hotel. The toasts of "The King" and "Reigning Sovereigns and Presidents" were proposed by the Chairman, and that of "The Ladies" by Herr Melchior Schwoon (Germany). The Chairman then bade farewell to the visitors,

hoping that they had enjoyed their stay in the West of Scotland. The thanks and appreciation of the visitors were expressed by Herr Christian Sommerschild (Norway), Mons. M. Barbut (France), Dr. P. Draganescu Brates (Roumania) and Mr. A. C. Upleger (U.S.A.). Sir Thomas Kelly replied.

Aberdeen.

The delegates and visitors were entertained at Aberdeen on July 27th by the Society of Accountants in Aberdeen. The party went by motor to Braemar, where lunch was served and Mr. Herbert Bower (President) extended a warm welcome to the guests, and Colonel Farquharson, of Invercauld, gave an interesting account of the history of that part of Scotland.

VISIT TO IRELAND.

Dublin.

The Institute of Chartered Accountants in Ireland and the Irish Branch of the Society of Incorporated Accountants and Auditors were joint hosts to Mr. and Mrs. W. A. Appleton (New Zealand), Mr. and Mrs. John Hyde (Montreal), Mr. H. Jackson (Bucharest), Mr. and Mrs. R. K. Hardy (London), Mr. C. Van Uden (Amsterdam), and Mr. A. J. Walker (Toronto).

On July 24th a visit was made to Trinity College, Dublin, where the party saw the library, with the Book of Kells, and other features of interest. They then visited the Dail and Seanad, the Government Buildings, Dublin Castle, the Bank of Ireland, and the principal monuments of the city. Mr. T. Geoghan (President of the Institute of Chartered Accountants in Ireland) presided at lunch in the Hibernian Hotel. The party afterwards visited Guinness's Brewery, and had tea in the Zoological Gardens.

In July 25th a tour was made of County Wicklow, with visits to Glendalough and the Seven Churches and Greystones.

Belfast.

From the evening of July 25th until July 27th the visitors were entertained by the Belfast Society of Chartered Accountants and the Incorporated Accountants' Belfast and District Society. They made a tour of Belfast and were received at the City Hall by the Lord Mayor, who extended a hearty welcome to them, and referred to the hospitality which he had received when he visited Canada. Mr. Hyde and Mr. Walker replied.

After lunch in the Grand Central Hotel, the party inspected the Parliament Buildings and made a tour of County Down, including Newtownards, Greyabbey, Ballywalter, Donaghadee and Bangor.

Thursday, July 27th, was spent in a motor coach drive around County Antrim, and afternoon tea was served at the Northern Counties Hotel, Portrush. The delegates expressed their thanks and appreciation for the hospitality extended to them, and Mr. D. Tilford Boyd and Mr. W. L. H. Rodden responded.

VISIT TO CAMBRIDGE.

Leaving King's Cross on the morning of July 20th, the party visiting Cambridge were taken on arrival to Peterhouse and thence walked via the river to Trinity, visiting *en route* Queen's College, King's College Chapel, the Senate House, Trinity Hall and Clare. Luncheon, at which Mr. Bertram Nelson, F.S.A.A., presided, was taken in the Hall of Trinity College, by kind permission of the Master and Fellows, and the visitors were then left free for upwards of an hour, many taking punts or canoes on the river. Meeting again at Trinity, the party was then taken by motor coach on a comprehensive tour of the remaining colleges and halls, visiting also the Backs, the new University library and the boat houses. The return journey was commenced at 4.45, tea being served *en route*, and Liverpool Street was reached shortly after 6 o'clock.

Incorporated Accountants Students Society of London and District.

Syllabus of Lectures—Autumn Session, 1933.

- Oct. 3rd. Lecture: "The City Editor's Weekly Round," by Mr. A. S. Wade, City Editor, *The Evening Standard*. *Chairman*: Sir Stephen Killik, J.P. (President of the Society).
- Oct. 10th. Lecture: "Responsibilities and Duties of Directors and Officers in a Newly-formed Company," by Mr. Herbert W. Jordan. *Chairman*: Mr. E. E. Edwards (Parliamentary Secretary of the Society of Incorporated Accountants and Auditors).
- Oct. 17th. Lecture: "A Trusteeship in Bankruptcy—the Practical Aspect," by Mr. W. J. Back, Incorporated Accountant. *Chairman*: Mr. W. D. Menzies, Incorporated Accountant.
- Nov. 7th. Lecture: "The General Principles of Income Tax," by Mr. N. M. G. Faulks, M.A., LL.B., Barrister-at-Law. *Chairman*: Mr. M. J. Faulks, M.A., Incorporated Accountant.
- Nov. 14th. Lecture: "Executorship Accounts in Relation to Apportionments, with Blackboard Illustrations," by Mr. W. H. Grainger, Incorporated Accountant. *Chairman*: Mr. S. T. Morris, Incorporated Accountant.
- *Lecture: "Accountancy Methods as a Factor in the Economic System," by the Rt. Hon. Lord Melchett.

* Meeting of the London and District Society to which Members are invited. This lecture will be delivered in January, 1934; exact date to be announced later.

To be held at Incorporated Accountants' Hall, Victoria Embankment, London, W.C.2. (opposite Temple Station, District Railway).

The chair will be taken at the above meetings at 6.15 o'clock precisely.

UNSUCCESSFUL ACTION AGAINST AUDITORS.

We are indebted to the *Sydney Morning Herald* for the following report of an Australian case in the Supreme Court before Mr. Justice Stephen and a jury, which lasted twelve days and created great interest among accountants and business people generally:—

Wallerawang Collieries Limited v. Brierley and Others.

By a majority verdict, which was taken by consent of the parties after a retirement of a little more than two hours, the jury returned a verdict for the defendants in the action brought by Wallerawang Collieries Limited against Mr. Alan N. Brierley, Mr. Wallace George Fisher and Mr. Wallace Rae Schofield, carrying on business as public accountants, under the name of Kent, Brierley and Sully, to recover damages for alleged negligence in the performance of audits.

His Honour directed the jury, at the outset of his summing up, that the general burden of proof was on the plaintiff company, but if the defendants, in the course of their audit, gave a certificate that the plaintiff company was in a certain financial position and that certificate was incorrect, although the defendants honestly believed it to be correct, then, in those circumstances, the onus was on the defendants to show that the incorrect result at which they arrived was not due to some negligence on their part. There were two counts, it was explained to the jury. The first was for breach of contract, and the second was for negligence in tort. Under the first count plaintiff company said there was a retainer of the defendants to audit, examine, check, and report upon the books, accounts, vouchers, papers, and records of the plaintiff company, as public accountants and auditors, and to certify as to their correctness and for reward to the defendants. The count went on to state that that retainer was accepted and that the defendants promised the plaintiff company to use due care, skill, diligence and caution in doing that work. Then there followed a claim that there was a breach of that contract to take due care.

In a discussion of the pleas filed to the first count, His Honour said the main one for the consideration of the jury was that which denied that there were any breaches of contract on the part of the defendants to take reasonable care. The contract to take reasonable care was implied by law when a skilled person undertook to do certain work. There was no contract in writing, but there was a minute of June 10th, 1925, which said that the defendants had been appointed auditors. It would be remembered that on that, representatives of the defendants went down and commenced an audit after certain conversations which might, or might not, have affected the matter. The certificate which defendants gave in respect of the accounts was, speaking from memory, "We have examined the books and vouchers of the company and we certify that the financial position of the company at present date is 'so and so.'" His Honour said that on these facts there was a contract to make a complete audit and the duty of the defendants was to exercise reasonable care in the following matters: Firstly, examination of the books and vouchers; secondly, ascertainment and report on the correct financial position of the company; and thirdly, a check of the books and vouchers for errors of omission or commission, including fraud. It was at one time suggested that there was a question for the jury whether the minute book was one of the books of the company included in that certificate; but the evidence

seemed to be all one way, that the minute book was not generally referred to by auditors in arriving at a proper audit of the company's books; and the question was then put—and properly put by Mr. Monahan—whether there was any want of reasonable care on the part of the defendants in the way in which they did refer to the minute book. That was one of the important and substantial questions that the jury had to deal with. So the question arose whether there was a breach of implied contract to exercise reasonable care in and about the work which they had undertaken to do.

Negligence, his Honour said, was generally defined as being an omission to do that which a reasonable man would do in the circumstances, or the doing of something which a reasonable man would not do in the circumstances. There was the further point to be noted—that it was not sufficient for plaintiff to say that defendant was negligent, but that he had to indicate the specific matters in respect of which he said the defendants had failed. His Honour said there were some general considerations he wished to apply here. In this particular case it was not a question of negligence by an ordinary person or the amount of prudence required of an ordinary man, but it was a question of the amount of care which might reasonably be expected of a person of a skilled profession of accountancy or auditorship. In respect of that, certain rules had been laid down. It was the duty of a skilled person to exercise, diligently and honestly, that amount of care which was expected of him according to the standards of that profession. "Every person," said a learned Chief Justice (Tindal, C.J.), "who enters into a learned profession undertakes to bring to its exercise a reasonable degree of care and skill. He does not undertake, if he is an attorney, that at all events you shall gain your case; nor does a surgeon undertake that he will perform a cure."

Continuing, he said the professional man had to show a fair, reasonable, and competent degree of skill. The plaintiff succeeded if the jury was satisfied that there was a carelessness which was incompatible with the ordinary standard of practice in the profession. Secondly, the amount of care required might vary according to the circumstances of the particular case. Thirdly, there was a difference between a private audit and the audit of the books of a company. Coming to the first matter, in respect of which a claim was made for negligence, his Honour said the question was: Was there an absence of reasonable care by the defendants in failing to check certain lists of cheques in the minute books? In those minute books there were lists of cheques passed at the meetings. Secondly, there were lists of cheques "drawn since last meeting," and the printed number of each cheque was always given. In these latter lists, that was of cheques drawn since last meeting, the secretary of the company, Ogilvie, on about 86 occasions—not quite that number—entered a cheque as being of a small amount, forged a cheque for a larger sum, cashed the cheque at the bank, and kept the proceeds. He then forged the invoices and the authorising initials of such invoices, and the total of the actual amounts in the minute books were incorrectly added so as to conceal the fraud. This, it was submitted, would be quite obvious to anybody who checked the entry, and added it up. The defendants admittedly did not check those entries. The question was whether this was negligence or not. Was that below the standard of care which was required by the practice of the profession? The plaintiff company claimed that it was.

Having examined the evidence under this heading and discussed the other matters in which it was alleged that there had been negligence, his Honour said that in the first instance the claim for damages was for £17,250 for the

loss of the amount of the forged cheques. The declaration said, "Whereby plaintiffs were defrauded of large sums of money." That meant large sums of their own money. His Honour's view of the law, which the jury must take for the present, was that it was not the plaintiffs who were defrauded of their money, but the bank, and that therefore that money was still in the bank, or rather that the debt which originally arose from the payment in of the money was still in existence, and the bank had to pay it back. When his Honour first gave that ruling, he understood from Mr. Flannery that he still indicated that there was some general damage, and that his Honour would have to leave it to the jury. His Honour believed that these particular damages were not covered by the declaration, and Mr. Flannery asked for an amendment under which the jury was now asked to assess a substantial sum of damages if there was this negligence; that was to say that plaintiffs had lost the use of a large sum of money the right to which was thereby concealed. His Honour also told the jury that they could not give damages unless it was shown that the negligence of the auditors was the effective cause of the loss. A person might be negligent and that might create a set of circumstances which allowed a second person to be negligent, and from that negligence flowed loss to the plaintiff.

His Honour directed the jury on the tort count that they could not find a verdict unless they found there were substantial damages.

Changes and Remobals.

Mr. Arthur Allnutt, Incorporated Accountant, has commenced public practice at 69, High Street, Broadstairs.

Messrs. Barker Brothers & Wood, Chartered Accountants, announce that the partnership has been dissolved. Mr. Claude E. Barker, F.C.A., and Mr. Cecil V. Barker, F.C.A., will continue the practice at Regent House, Kingsway, London, W.C.2, under the original firm name of Barker Brothers, and Mr. Leonard S. Wood, F.C.A., Incorporated Accountant, will practise under the name of Leonard Wood & Co. at Moorgate Station Chambers, London, E.C.2.

Mr. H. J. E. Batchelor, Incorporated Accountant, has removed his office to 5, High Street, Southampton.

Mr. W. M. Budd, Incorporated Accountant, announces that he has relinquished his practice at 34, Dame Street, Dublin, having accepted a commercial appointment.

Messrs. Clinch & Legge, Incorporated Accountants, have removed their London offices to 52, Bedford Row, London, W.C.1.

Messrs. Horace Fruin, Warner & Co. announce a change of address to The White House, Balkeine Lane, Colchester.

Messrs. Gibson, Whiteley & Co., Incorporated Accountants, announce their removal to 404-8, Reserve Bank Chambers, Wale Street, Cape Town, South Africa. This change also applies to the offices of the South African Committee, Western Branch.

Messrs. Hardy, Hislop & Co., Chartered Accountants, have removed from 119, Moorgate, E.C., to 52, Bedford Row, London, W.C.1.

Mr. Sidney W. Revill announces that he has admitted his son, Mr. Charles F. Revill, into partnership. The practice will be continued under the style of Sidney W. Revill & Co., Incorporated Accountants, at 4 and 5, Warwick Court, Gray's Inn, London, W.C.1.

Messrs. W. H. Spendlove & Co. announce that they have removed their offices to Shenstone House, Marsh Hill, Erdington, Birmingham.

Messrs. W. T. Walton & Son, Incorporated Accountants, of 3-7, Scarborough Street, West Hartlepool, Victoria Buildings, Stockton-on-Tees and Marlow House, Lloyd's Avenue, London, E.C., announce that they have admitted into partnership Mr. Sydney Allan Forster, A.C.A., Incorporated Accountant, Mr. Harry John Sargeant, A.C.A., Incorporated Accountant, and Mr. Thomas Hutchinson Rowland, A.C.A., Incorporated Accountant.

District Societies of Incorporated Accountants.

BOMBAY.

Annual Report.

The Committee have pleasure in presenting to the members the fourth annual report of the District Society.

The audited accounts of the Society for the year ended March 31st, 1933, show a surplus of Rs. 497.15, which brings up the funds to Rs. 2,133.12.9.

MEMBERSHIP.

The number of members on the roll is 32, of whom four are resident out of Bombay.

INCOME TAX CIRCLE.

A Study Circle to discuss income tax questions of professional interest has been started, and we are glad to note that the members are taking an active interest in the work.

LIBRARY.

Steps are being taken to make the library comprehensive and more useful to the members. Books of reference not usually owned by members are being purchased in the first instance. Our thanks are due to some of the members who have contributed in kind and in money to enlarge the collection. Files of published balance sheets, Memorandums and Articles of Association of public companies are being maintained in the library for the use of members.

COMMITTEES.

Sub-Committees have been appointed to study and report on questions such as insurance legislation, professional charges, auditors' certificate rules, &c.

SOUTH WALES AND MONMOUTHSHIRE.

(CARDIFF AND DISTRICT STUDENTS' SECTION.)

An enjoyable cricket match was played at the Cardiff Arms Park on August 3rd between the Chartered Accountants' Students' Society and the Cardiff and District Incorporated Accountants' Students' Section. The Incorporated Students, who batted first, made an excellent start, the first wicket producing 98 runs, but their total was only 158. The batting of the Chartered Students was more consistent and their total eventually reached 168.

YORKSHIRE.

Syllabus of Lectures, 1933-34.

- 1933.
- Oct. 3rd. Opening Lecture, "Some Impressions of the Fourth International Congress on Accounting," by Mr. Thomas Keens, F.S.A.A.
- Oct. 17th. Lecture, "Practical Costing," by Mr. R. Glynne Williams, A.C.A., F.R.Econ.S. (to be held at the Y.M.C.A., John William Street, Huddersfield).
- Oct. 31st. Lecture, "What your Banker wants to Know about You," by Mr. F. J. Lewcock, A.C.I.S.
- Nov. 14th. Lecture, "Income Tax," by Mr. Stanley A. Spofforth, A.S.A.A.
- Nov. 28th. Lecture, "Executorship Accounts with regard to Apportionment," by Mr. W. H. Grainger, F.S.A.A.
- Dec. 12th. Lecture, "Valuation of Unquoted Shares for Death Duty and other Purposes," by Mr. H. A. Perkis, A.S.A.A., A.C.A.
- 1934.
- Jan. 10th. Lecture, "Voluntary Liquidations," by Mr. J. H. Bromley, Solicitor, Leeds.
- Jan. 23rd. Lecture, "Income Tax," by Mr. Victor Walton, F.C.A. (to be held at the Y.M.C.A., John William Street, Huddersfield).
- Jan. 30th. Lecture, "Income Tax," by Mr. Victor Walton, F.C.A.
- Feb. 18th. Joint Meeting with the Incorporated Accountants' Bradford and District Society. Subject later.
- Feb. 27th. Lecture, "The Economics of Costing," by Mr. W. H. Stalker, A.S.A.A.
- Mar. 6th. Lecture, "The Interpretation of Accounts," by Mr. W. Bertram Nelson, F.S.A.A.
- Mar. 20th. Joint Meeting with the Chartered Institute of Secretaries (West Yorkshire Branch). Subject: "The Importance of Profit and Loss Account, compared with Balance Sheet, from an Investor's Point of View."

All lectures are held at the Hotel Metropole, King Street, Leeds, at 6.30 p.m., unless otherwise stated.

Scottish Notes.

(FROM OUR CORRESPONDENT.)

Scottish Education Report.

The sixtieth annual report by the accountant in Edinburgh to the Scottish Education Department on the accounts for the year 1931-32 was issued last month. The report is signed by Mr. J. A. Thomson, accountant to the Department. The total revenue receipts shown by the accounts of town and county councils as education authorities amounted to £7,126,716, of which £6,881,538 was derived from grants from the Scottish Education Department, the balance being made up of school fees, endowments and income from other sources. The total revenue expenditure amounted to £12,367,537, of which £245,178 is covered by receipts other than Grants and Rates. The proportions of the balance of £12,122,359 were made from Grants and Rates, as follows:—

		Per cent.
(a) Grants from the Scottish Education Department	£6,881,538	56.8
(b) Balance met from grants under Part III of the Local Government (Scotland) Act, 1929, and from the consolidated rates	5,240,821	43.2
	£12,122,359	100

It will be interesting to compare these figures with those for 1932-33 when available, in view of the attempts made to effect economies by various education authorities.

Savings Banks—Income Tax.

An important concession was made in this year's Finance Act to companies, societies and banks, and it has been of special interest to Savings Banks, including some Scottish Savings Banks which had trouble over this question, in connection with their claims for repayment of income tax in respect of expenses of management.

Under sect. 33 of the Income Tax Act, 1918, there is a proviso to the effect that relief was not to be given so as to make the tax payable by the company less than the tax which would have been paid if the profits had been charged in accordance with the ordinary rules applicable under Schedule D. The method of working the computation is extremely complicated.

As explained by Mr. R. Boothby, M.P., who moved the new clause, the practice of the Inland Revenue has been to take the gross income of the company for the preceding year and then deduct the management expenses on that same preceding year and calculate the income tax on the difference between the two. They then say that the amount of tax which can be repaid must not be more than the excess of tax actually borne by the company in the year of reclaim over the tax on the figures of the previous year. It seems easier to work this out in practice (after doing it once) than to explain it.

In the case of investment trust companies, this was particularly inequitable, as it sometimes happened that if the profits of the investment trust company had gone down, they received no relief on their management expenses. On the other hand, if their profits rose they could get the relief they claimed.

In reply to a question, the Financial Secretary to the Treasury stated that the concession would not likely cost more than £80,000, and the clause would relieve an anomaly.

Civil Service Bowling.

The Civil Service Bowling Association held their annual tournament in Edinburgh in July. Mr. J. Stewart Seggie, F.S.A.A., who is captain of the Scottish Association this year, was the leading skip of Scottish rinks, which took all the principal prizes of the tournament. As in 1927, when the Association met in Edinburgh, Mr. Seggie prepared an interesting brochure, giving not only the programme of the bowling events, but concise notes on the history and associations of the streets and historic buildings within a few minutes' walk of the Council Chambers in which the general meeting of the Bowling Association was held. The pamphlet was much appreciated, especially by the English visitors.

A Debt-Recovery Company.

An Edinburgh man, describing himself as an "accountant," was sentenced to eighteen months imprisonment for fraud in connection with deposits received from persons whom he had induced to become interested in debt-recovery companies. The facts show the facility with which a business can be developed by

persistent circularising. Starting in a small way as a local debt collector, the accused gradually extended his business until it covered a great part of the United Kingdom and had thousands of subscribers, over a hundred clerks, and included four separate companies. It was in connection with moneys received on deposit by persons who were promised directorships in these companies that the accused got into trouble, but the expenses of carrying on these businesses ultimately involved him in disaster.

Notes on Legal Cases.

[The abbreviations at the end of each of the cases refer to the following law reports, where full reports of the case may be found. The Law Reports and other reports are cited with the year and the Division, e.g. (1925) 2 K.B. :—

T.L.R., *Times Law Reports*; *The Times*, *The Times Newspaper*; L.J., *Law Journal*; L.J.N., *Law Journal Newspaper*; L.T., *Law Times*; L.T.N., *Law Times Newspaper*; S.J., *Solicitors' Journal*; W.N., *Weekly Notes*; S.C., *Session Cases (Scotland)*; S.L.T., *Scots Law Times*; I.L.T., *Irish Law Times*; J.P., *Justice of the Peace (England)*; L.G.R., *Knight's Local Government Reports*; B.&C.R., *Bankruptcy and Company Cases*.

The other abbreviations used in modern reports are H.L., House of Lords; A.C., Appeal Court (House of Lords and Privy Council); C.A., Court of Appeal; Ch., Chancery Division; K.B., King's Bench Division; P., Probate, Divorce and Admiralty Division; C.S., Court of Session (Scotland); J., Mr. Justice (King's Bench or Chancery); L.J., Lord Justice; L.C., Lord Chancellor; M.R., Master of the Rolls; N.I., Northern Ireland; P., President of Probate, Divorce and Admiralty.]

COMPANY LAW.

In re Aldall.

Liability to Contribute to Assets on Winding up.

Although sect. 158 of the Companies Act, 1929, defines contributory as "every person liable to contribute to the assets of a company in the event of its being wound up," yet the holder of shares which were fully paid, but who was declared by the liquidator entitled to receive a large sum out of the company's assets on a winding up, was held to be a contributory subject to the jurisdiction of the Court, within the scope of sect. 205, and was ordered to pay a debt due by the company to the Crown of which he had notice.

(Ch.; (1933) B. & C.R., 56.)

Angostura Bitters Limited v. Kerr.

Fund for Benefit of Preference Shareholders.

By its Memorandum of Association a company provided for the constitution of a reserve fund of £50,000 to be accumulated from the profits of the company after certain dividend payments had been made. The Articles also authorised the setting aside of a reserve fund out of profits, in addition to the reserve fund empowered by the Memorandum. The fund set aside under the Articles was to be used to meet contingencies, or for special dividends, or for maintaining the property of the company and for such other purposes as the directors in their absolute discretion might think conducive to the interests of the company. The Articles also provided that the reserve fund to be set aside under the Memorandum should be kept invested outside the business "until required for any of the above purposes."

It was held that the Memorandum and the Articles might be read together to explain any ambiguity appearing in the terms of the Memorandum or to supplement it on any matter on which it was silent, but that in the present case, as there was no ambiguity, the reserve fund authorised by the Memorandum having been created for the benefit and protection of the preference shareholders, the two documents could not be read together, and it was *ultra vires* the directors of the company to use the Memorandum reserve fund for any of the purposes set out in the Articles of Association.

(P.C.; (1933) W.N., 148.)

In re Société Intercommunale Belge d'Electricité.

Bonds of Foreign Company.

A bond dated September 25th, 1928, and issued by a Belgian company, provided that the company would pay the bearer "the sum of £100 in sterling in gold coin of the United Kingdom of or equal to the standard of weight and fineness existing on September 1st, 1928, and the interest was made payable on similar terms with varying dates. The bond was to be construed according to English law.

It was held by the Court of Appeal (1) that the bond was not a contract for delivery of bullion, but imposed an obligation to pay a debt with interest; (2) that the provision for payment in gold coin of the specified weight and fineness did not fix the measure of the company's liability, but the mode in which the indebtedness was to be discharged; and (3) that as bank-notes were made legal tender by the combined effect of the Bank of England Act, 1833, and the Currency and Bank Notes Act, 1928, that indebtedness could by virtue of the Coinage Act, 1870, sect. 6, be satisfied in bank-notes.

(C.A.; (1933) Ch., 684.)

EXECUTORSHIP LAW AND TRUSTS.

Hyde v. White.

Property Recovered or Preserved.

A party to a probate action propounded several wills of the deceased, being also interested as next-of-kin in the event of the intestacy of the deceased. The Court pronounced for an intestacy and against the wills. On an application of solicitors who had conducted the litigation for the party propounding the wills, and had since been discharged, the Court made an order declaring them entitled to a charge for their costs upon the interest of their client in the intestacy as upon "property recovered or preserved through their instrumentality."

(P.; (1933) P., 105.)

REVENUE.

Elliott v. Burn.

Grant of Right to Work Minerals.

The appellants, who were the owners of land and were assessed to income tax on its annual value under No. 1 of Schedule A, granted to colliery owners liberty to work coal under the land in consideration of an annual rent and a royalty and were also assessed to income tax on the sums paid to them by the colliery owners.

It was held that the appellants were not assessable to income tax under Rule 7 of No. II of Schedule A on the sums received by them from the colliery owners, as the land had already paid its tax, and those sums were not a profit arising from use of the land, but were sums paid to the appellants in consideration of their not taking proceedings to protect their right to support for the land.

(C.A.; (1933) 40 T.L.R., 552.)

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Vol. XLIV. No. 12]

[September, 1933

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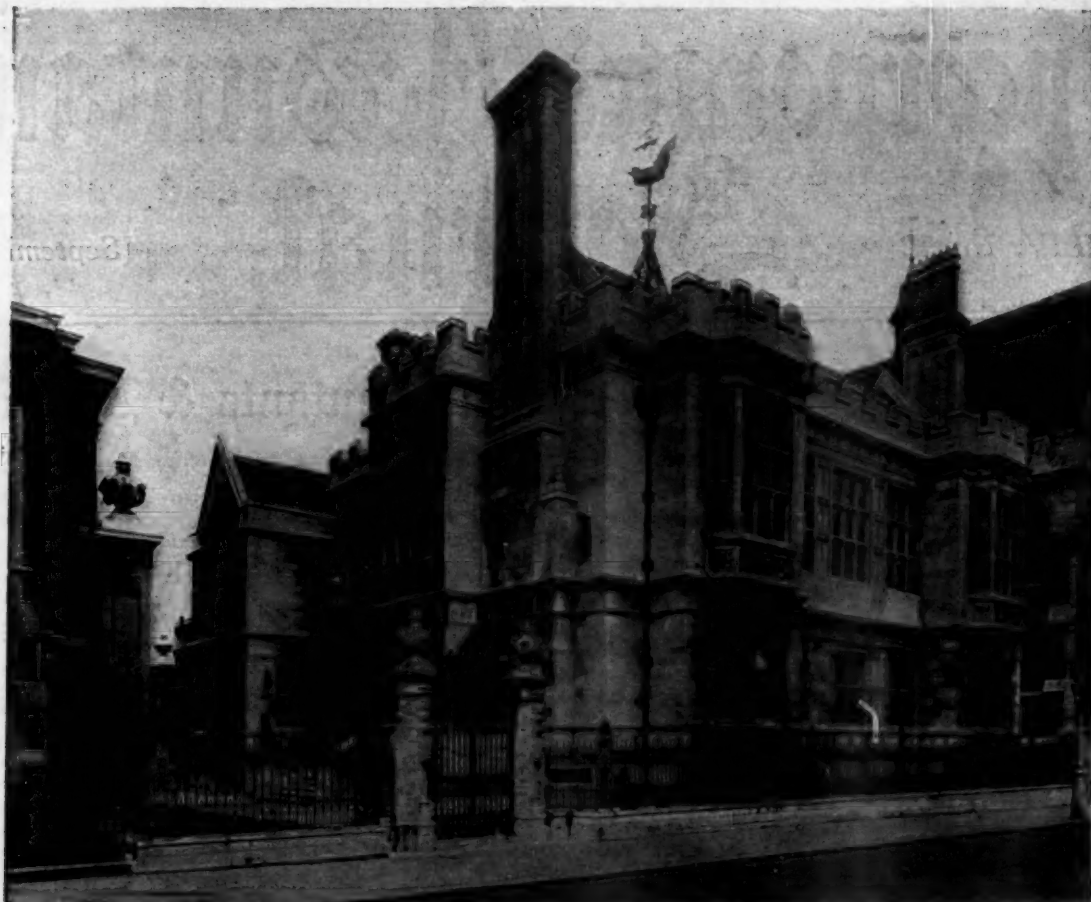
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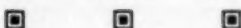
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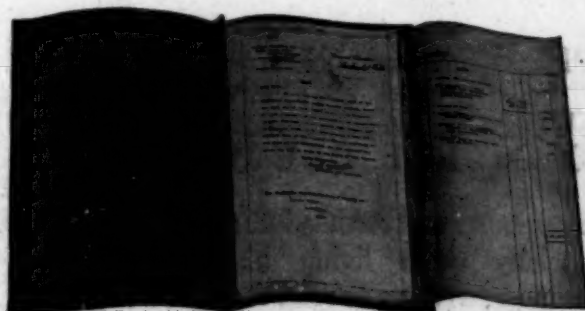
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The Secretary will also be glad to receive early information of
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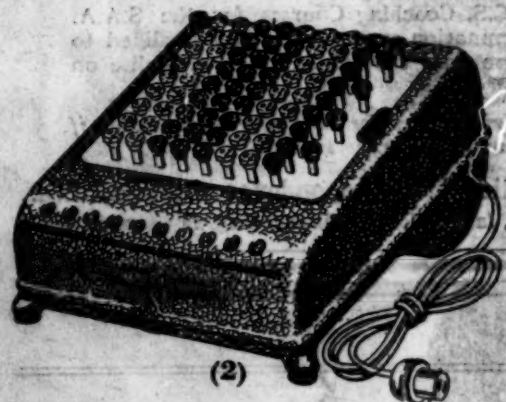
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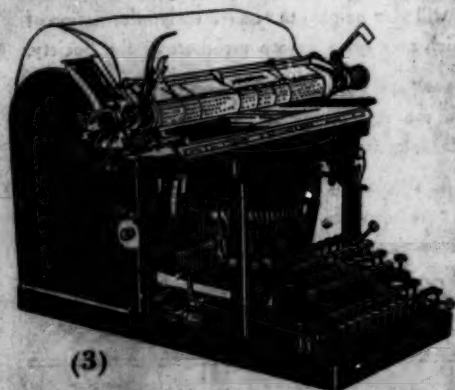


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